

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: HALO

Report Number: P1214536

Luminaire Tested: HFL2001S/HFL2002S-930

Issue Date: 12/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1214536
Test Lab: THIRD PARTY NVLAP LAB
Issue Date: 12/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: HFL2001S/HFL2002S-930
Description: HALO FLEX LINEAR 200LM/FT 90 CRI COLOR SELECTABLE FIXTURE (ONE FOOT)
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

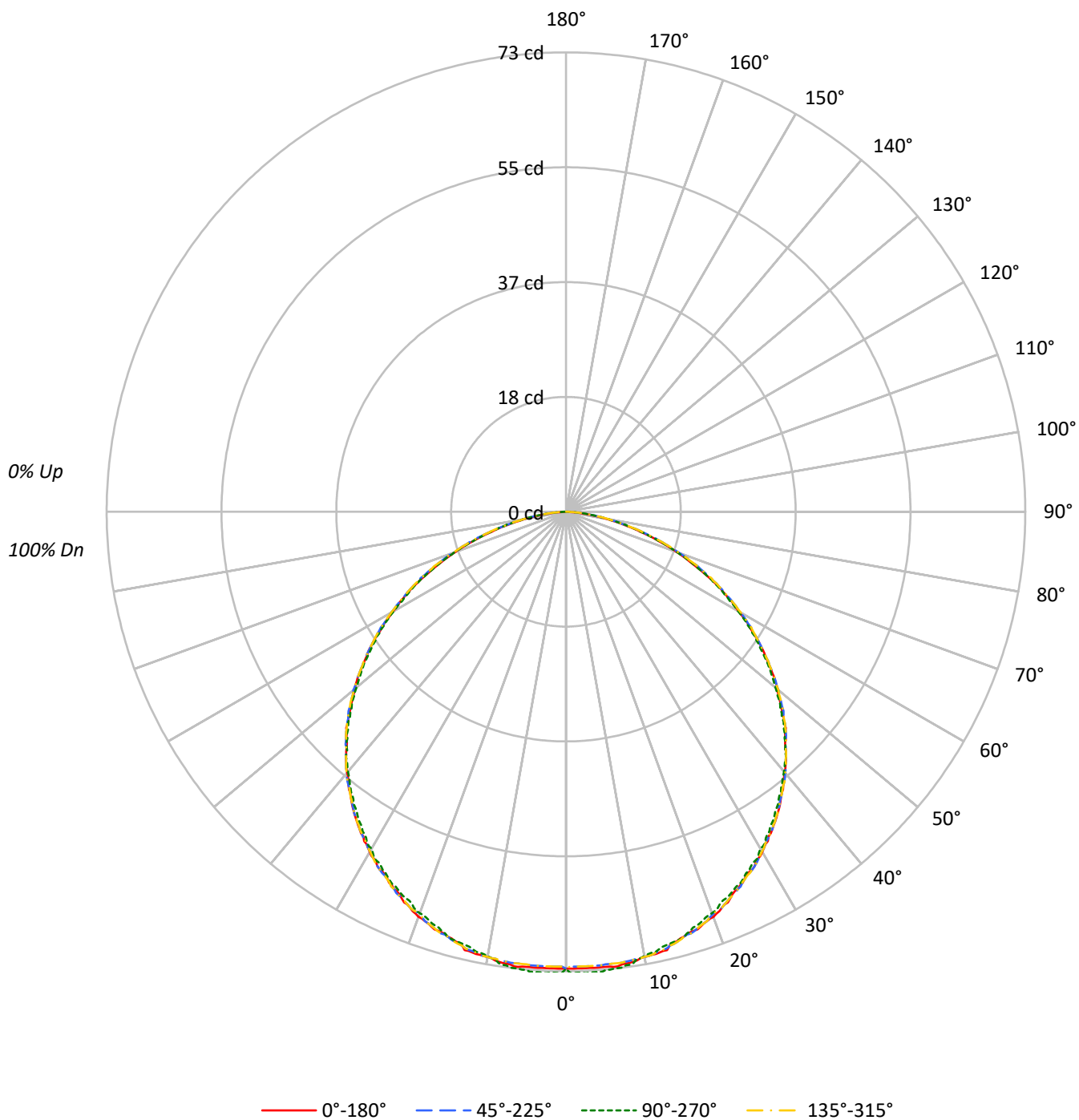
Lumens per Lamp: N/A
Luminaire Lumens: 207.1 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 0.03' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 2.2
Input Voltage (V): 24
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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CATALOG NUMBER: HFL2001S/HFL2002S-930

Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	84	78	96	89	83	77	85	80	76		82	78	74		79
3	90	80	72	65	88	78	71	65	75	69	63		72	67	62		70
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62
5	76	63	54	47	74	62	54	47	60	52	47		58	51	46		56
6	70	57	48	41	68	56	47	41	54	46	41		52	46	40		51
7	65	51	43	37	63	51	42	36	49	42	36		48	41	36		46
8	61	47	38	33	59	46	38	32	45	38	32		44	37	32		42
9	57	43	35	29	55	42	35	29	41	34	29		40	34	29		39
10	53	40	32	27	52	39	32	26	38	31	26		37	31	26		36

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	26049	26049	26049	26049
5°	26148	26328	26148	26328
10°	26159	26123	26159	26123
15°	26076	26113	26076	26113
20°	26155	25926	26155	25926
25°	25931	25852	25931	25852
30°	25853	25604	25853	25604
35°	25667	25405	25667	25405
40°	25339	25245	25339	25245
45°	25016	24863	25016	24863
50°	24505	24281	24505	24281
55°	23896	23583	23896	23583
60°	22819	22676	22819	22676
65°	21649	21649	21649	21649
70°	19722	19827	19722	19827
75°	16913	17190	16913	17190
80°	13637	14464	13637	14464
85°	9057	9880	9057	9880

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45.5°

Luminance: 25083 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.9	3.3
10°-20°	19.8	9.6
20°-30°	30.2	14.6
30°-40°	36.5	17.6
40°-50°	37.9	18.3
50°-60°	34.0	16.4
60°-70°	25.3	12.2
70°-80°	13.4	6.5
80°-90°	3.1	1.5
90°-100°	0.1	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	56.9	27.5
0°-40°	93.4	45.1
0°-60°	165.3	79.8
0°-90°	207.0	100.0
90°-120°	0.1	0.0
90°-150°	0.1	0.0
90°-180°	0.0	0.0
0°-180°	207.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	73	73	73	73	73	
5°	73	73	73	73	73	7
15°	70	70	70	70	70	20
25°	66	65	66	65	66	30
35°	59	58	59	58	59	37
45°	49	49	49	49	49	38
55°	38	38	38	38	38	34
65°	26	26	26	26	26	25
75°	12	12	12	12	12	13
85°	2	2	2	2	2	3
90°	0	0	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6
0.5°	72.6	72.8	72.3	72.4	73.3	72.4	72.3	72.8	72.6	72.8	72.3
1°	72.6	72.8	72.3	72.4	73.3	72.4	72.3	72.8	72.6	72.8	72.3
1.5°	72.6	72.7	72.3	72.4	73.3	72.4	72.3	72.7	72.6	72.7	72.3
2°	72.6	72.7	72.3	72.3	73.3	72.3	72.3	72.7	72.6	72.7	72.3
2.5°	72.6	72.5	72.3	72.3	73.4	72.3	72.3	72.5	72.6	72.5	72.3
3°	72.6	72.5	72.3	72.3	73.3	72.3	72.3	72.5	72.6	72.5	72.3
3.5°	72.6	72.5	72.3	72.2	73.3	72.2	72.3	72.5	72.6	72.5	72.3
4°	72.6	72.4	72.3	72.2	73.3	72.2	72.3	72.4	72.6	72.4	72.3
4.5°	72.6	72.3	72.3	72.2	73.3	72.2	72.3	72.3	72.6	72.3	72.3
5°	72.6	72.2	72.2	72.2	73.1	72.2	72.2	72.2	72.6	72.2	72.2
5.5°	72.6	72.2	72.2	72.2	73.1	72.2	72.2	72.2	72.6	72.2	72.2
6°	72.7	72.1	72.2	72.2	73.0	72.2	72.2	72.1	72.7	72.1	72.2
6.5°	72.7	72.1	72.2	72.1	73.0	72.1	72.2	72.1	72.7	72.1	72.2
7°	72.5	72.0	72.2	72.0	73.0	72.0	72.2	72.0	72.5	72.0	72.2
7.5°	72.4	71.9	72.1	72.1	72.7	72.1	72.1	71.9	72.4	71.9	72.1
8°	72.4	71.7	72.1	72.1	72.7	72.1	72.1	71.7	72.4	71.7	72.1
8.5°	72.3	71.6	72.0	72.0	72.5	72.0	72.0	71.6	72.3	71.6	72.0
9°	72.2	71.4	71.9	72.0	72.0	72.0	71.9	71.4	72.2	71.4	71.9
9.5°	71.9	71.2	71.9	71.9	71.9	71.9	71.9	71.2	71.9	71.2	71.9
10°	71.8	71.1	71.8	71.8	71.7	71.8	71.8	71.1	71.8	71.1	71.8
10.5°	71.8	71.0	71.8	71.6	71.5	71.6	71.8	71.0	71.8	71.0	71.8
11°	71.7	71.0	71.7	71.4	71.4	71.4	71.7	71.0	71.7	71.0	71.7
11.5°	71.7	70.9	71.5	71.3	71.4	71.3	71.5	70.9	71.7	70.9	71.5
12°	71.6	70.9	71.4	71.2	71.1	71.2	71.4	70.9	71.6	70.9	71.4
12.5°	71.5	70.8	71.3	71.1	70.8	71.1	71.3	70.8	71.5	70.8	71.3
13°	71.5	70.8	71.2	71.1	70.7	71.1	71.2	70.8	71.5	70.8	71.2
13.5°	70.8	70.7	70.9	71.0	70.6	71.0	70.9	70.7	70.8	70.7	70.9
14°	70.6	70.4	70.8	70.9	70.5	70.9	70.8	70.4	70.6	70.4	70.8
14.5°	70.5	70.3	70.6	70.6	70.4	70.6	70.6	70.3	70.5	70.3	70.6
15°	70.2	69.9	70.4	70.5	70.3	70.5	70.4	69.9	70.2	69.9	70.4
15.5°	70.1	69.7	70.1	70.3	70.2	70.3	70.1	69.7	70.1	69.7	70.1
16°	69.8	69.6	69.9	70.0	69.7	70.0	69.9	69.6	69.8	69.6	69.9
16.5°	69.7	69.5	69.9	69.8	69.5	69.8	69.9	69.5	69.7	69.5	69.9
17°	69.6	69.3	69.7	69.6	69.1	69.6	69.7	69.3	69.6	69.3	69.7
17.5°	69.6	69.1	69.4	69.4	69.0	69.4	69.4	69.1	69.6	69.1	69.4
18°	69.3	68.8	69.2	69.2	68.8	69.2	69.2	68.8	69.3	68.8	69.2
18.5°	69.0	68.5	69.0	69.0	68.5	69.0	69.0	68.5	69.0	68.5	69.0
19°	68.8	68.3	68.8	68.7	68.2	68.7	68.8	68.3	68.8	68.3	68.8
19.5°	68.6	68.2	68.4	68.5	68.0	68.5	68.4	68.2	68.6	68.2	68.4
20°	68.5	67.9	68.1	68.3	67.9	68.3	68.1	67.9	68.5	67.9	68.1
20.5°	68.2	67.7	67.9	68.1	67.7	68.1	67.9	67.7	68.2	67.7	67.9
21°	68.0	67.5	67.8	67.9	67.4	67.9	67.8	67.5	68.0	67.5	67.8
21.5°	67.6	67.3	67.6	67.5	66.9	67.5	67.6	67.3	67.6	67.3	67.6
22°	67.3	67.0	67.3	67.2	66.6	67.2	67.3	67.0	67.3	67.0	67.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	67.2	66.7	67.0	66.9	66.5	66.9	67.0	66.7	67.2	66.7	67.0
23°	66.8	66.5	66.7	66.7	66.3	66.7	66.7	66.5	66.8	66.5	66.7
23.5°	66.3	66.2	66.5	66.3	66.0	66.3	66.5	66.2	66.3	66.2	66.5
24°	66.0	65.9	66.3	66.2	65.7	66.2	66.3	65.9	66.0	65.9	66.3
24.5°	65.9	65.5	65.9	65.9	65.4	65.9	65.9	65.5	65.9	65.5	65.9
25°	65.5	65.2	65.7	65.5	65.3	65.5	65.7	65.2	65.5	65.2	65.7
25.5°	65.3	64.9	65.2	65.3	65.0	65.3	65.2	64.9	65.3	64.9	65.2
26°	64.8	64.7	64.9	64.9	64.6	64.9	64.9	64.7	64.8	64.7	64.9
26.5°	64.5	64.5	64.6	64.7	64.2	64.7	64.6	64.5	64.5	64.5	64.6
27°	64.2	64.1	64.4	64.3	64.0	64.3	64.4	64.1	64.2	64.1	64.4
27.5°	64.1	63.9	64.1	64.0	63.6	64.0	64.1	63.9	64.1	63.9	64.1
28°	63.8	63.5	63.8	63.7	63.2	63.7	63.8	63.5	63.8	63.5	63.8
28.5°	63.3	63.2	63.5	63.4	63.1	63.4	63.5	63.2	63.3	63.2	63.5
29°	63.0	62.8	63.1	63.1	62.9	63.1	63.1	62.8	63.0	62.8	63.1
29.5°	62.8	62.3	62.7	62.7	62.3	62.7	62.7	62.3	62.8	62.3	62.7
30°	62.4	62.0	62.3	62.3	61.8	62.3	62.3	62.0	62.4	62.0	62.3
30.5°	62.0	61.7	62.0	61.9	61.7	61.9	62.0	61.7	62.0	61.7	62.0
31°	61.6	61.4	61.5	61.5	61.4	61.5	61.5	61.4	61.6	61.4	61.5
31.5°	61.4	60.9	61.2	61.2	60.8	61.2	61.2	60.9	61.4	60.9	61.2
32°	60.8	60.6	60.9	60.8	60.4	60.8	60.9	60.6	60.8	60.6	60.9
32.5°	60.6	60.1	60.5	60.5	60.2	60.5	60.5	60.1	60.6	60.1	60.5
33°	60.2	59.8	60.2	60.2	59.6	60.2	60.2	59.8	60.2	59.8	60.2
33.5°	59.8	59.4	59.7	59.7	59.3	59.7	59.7	59.4	59.8	59.4	59.7
34°	59.4	59.0	59.4	59.4	59.0	59.4	59.4	59.0	59.4	59.0	59.4
34.5°	59.0	58.6	58.9	58.9	58.5	58.9	58.9	58.6	59.0	58.6	58.9
35°	58.6	58.3	58.6	58.5	58.0	58.5	58.6	58.3	58.6	58.3	58.6
35.5°	58.2	57.9	58.1	58.0	57.7	58.0	58.1	57.9	58.2	57.9	58.1
36°	57.8	57.5	57.7	57.7	57.4	57.7	57.7	57.5	57.8	57.5	57.7
36.5°	57.3	57.1	57.2	57.2	56.8	57.2	57.2	57.1	57.3	57.1	57.2
37°	56.8	56.6	56.8	56.7	56.4	56.7	56.8	56.6	56.8	56.6	56.8
37.5°	56.3	56.1	56.4	56.3	56.1	56.3	56.4	56.1	56.3	56.1	56.4
38°	56.0	55.6	55.9	55.8	55.6	55.8	55.9	55.6	56.0	55.6	55.9
38.5°	55.5	55.2	55.5	55.4	55.2	55.4	55.5	55.2	55.5	55.2	55.5
39°	55.0	54.7	55.2	54.9	54.7	54.9	55.2	54.7	55.0	54.7	55.2
39.5°	54.5	54.3	54.7	54.5	54.3	54.5	54.7	54.3	54.5	54.3	54.7
40°	54.1	53.9	54.2	54.0	53.9	54.0	54.2	53.9	54.1	53.9	54.2
40.5°	53.7	53.5	53.8	53.6	53.5	53.6	53.8	53.5	53.7	53.5	53.8
41°	53.2	53.1	53.3	53.1	53.0	53.1	53.3	53.1	53.2	53.1	53.3
41.5°	52.8	52.5	52.7	52.6	52.6	52.6	52.7	52.5	52.8	52.5	52.7
42°	52.2	51.9	52.3	52.3	52.3	52.3	52.3	51.9	52.2	51.9	52.3
42.5°	51.7	51.5	51.8	51.6	51.5	51.6	51.8	51.5	51.7	51.5	51.8
43°	51.1	51.1	51.2	51.2	51.1	51.2	51.2	51.1	51.1	51.1	51.2
43.5°	50.6	50.5	50.9	50.8	50.7	50.8	50.9	50.5	50.6	50.5	50.9
44°	50.3	50.1	50.3	50.2	50.0	50.2	50.3	50.1	50.3	50.1	50.3
44.5°	49.7	49.6	49.9	49.8	49.7	49.8	49.9	49.6	49.7	49.6	49.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	49.3	49.1	49.4	49.2	49.0	49.2	49.4	49.1	49.3	49.1	49.4
45.5°	49.0	48.7	48.8	48.7	48.5	48.7	48.8	48.7	49.0	48.7	48.8
46°	48.1	48.1	48.4	48.4	48.1	48.4	48.4	48.1	48.1	48.1	48.4
46.5°	47.7	47.5	47.7	47.7	47.3	47.7	47.7	47.5	47.7	47.5	47.7
47°	47.1	47.0	47.3	47.2	46.9	47.2	47.3	47.0	47.1	47.0	47.3
47.5°	46.5	46.4	46.9	46.7	46.2	46.7	46.9	46.4	46.5	46.4	46.9
48°	46.0	45.9	46.2	46.1	45.8	46.1	46.2	45.9	46.0	45.9	46.2
48.5°	45.4	45.3	45.7	45.6	45.3	45.6	45.7	45.3	45.4	45.3	45.7
49°	44.9	44.9	45.1	45.1	44.6	45.1	45.1	44.9	44.9	44.9	45.1
49.5°	44.3	44.3	44.5	44.5	44.1	44.5	44.5	44.3	44.3	44.3	44.5
50°	43.9	43.7	44.1	44.0	43.5	44.0	44.1	43.7	43.9	43.7	44.1
50.5°	43.4	43.1	43.4	43.4	42.9	43.4	43.4	43.1	43.4	43.1	43.4
51°	42.8	42.6	42.9	42.8	42.4	42.8	42.9	42.6	42.8	42.6	42.9
51.5°	42.3	41.9	42.3	42.2	41.8	42.2	42.3	41.9	42.3	41.9	42.3
52°	41.6	41.4	41.7	41.7	41.3	41.7	41.7	41.4	41.6	41.4	41.7
52.5°	41.0	40.8	41.1	41.1	40.7	41.1	41.1	40.8	41.0	40.8	41.1
53°	40.4	40.3	40.5	40.5	40.2	40.5	40.5	40.3	40.4	40.3	40.5
53.5°	39.8	39.7	40.0	40.0	39.5	40.0	40.0	39.7	39.8	39.7	40.0
54°	39.2	39.0	39.3	39.3	38.9	39.3	39.3	39.0	39.2	39.0	39.3
54.5°	38.7	38.4	38.8	38.7	38.3	38.7	38.8	38.4	38.7	38.4	38.8
55°	38.2	37.8	38.1	38.1	37.7	38.1	38.1	37.8	38.2	37.8	38.1
55.5°	37.5	37.2	37.6	37.6	37.2	37.6	37.6	37.2	37.5	37.2	37.6
56°	37.0	36.6	37.0	36.9	36.5	36.9	37.0	36.6	37.0	36.6	37.0
56.5°	36.3	36.0	36.4	36.3	36.2	36.3	36.4	36.0	36.3	36.0	36.4
57°	35.6	35.4	35.8	35.6	35.3	35.6	35.8	35.4	35.6	35.4	35.8
57.5°	34.9	34.8	35.2	35.0	34.9	35.0	35.2	34.8	34.9	34.8	35.2
58°	34.3	34.3	34.7	34.4	34.1	34.4	34.7	34.3	34.3	34.3	34.7
58.5°	33.8	33.6	33.9	33.8	33.6	33.8	33.9	33.6	33.8	33.6	33.9
59°	33.1	33.0	33.4	33.2	32.9	33.2	33.4	33.0	33.1	33.0	33.4
59.5°	32.4	32.3	32.7	32.6	32.3	32.6	32.7	32.3	32.4	32.3	32.7
60°	31.8	31.6	32.1	32.0	31.6	32.0	32.1	31.6	31.8	31.6	32.1
60.5°	31.1	31.0	31.4	31.3	31.0	31.3	31.4	31.0	31.1	31.0	31.4
61°	30.5	30.4	30.8	30.7	30.4	30.7	30.8	30.4	30.5	30.4	30.8
61.5°	30.0	29.7	30.2	30.1	29.6	30.1	30.2	29.7	30.0	29.7	30.2
62°	29.3	29.2	29.6	29.5	29.1	29.5	29.6	29.2	29.3	29.2	29.6
62.5°	28.7	28.5	28.9	28.9	28.4	28.9	28.9	28.5	28.7	28.5	28.9
63°	28.0	27.9	28.3	28.2	27.9	28.2	28.3	27.9	28.0	27.9	28.3
63.5°	27.5	27.3	27.7	27.7	27.3	27.7	27.7	27.3	27.5	27.3	27.7
64°	26.8	26.8	27.1	27.1	26.7	27.1	27.1	26.8	26.8	26.8	27.1
64.5°	26.1	26.1	26.5	26.4	26.0	26.4	26.5	26.1	26.1	26.1	26.5
65°	25.5	25.4	25.8	25.8	25.5	25.8	25.8	25.4	25.5	25.4	25.8
65.5°	24.7	24.8	25.4	25.1	24.7	25.1	25.4	24.8	24.7	24.8	25.4
66°	24.0	24.1	24.5	24.5	24.2	24.5	24.5	24.1	24.0	24.1	24.5
66.5°	23.4	23.5	23.9	23.8	23.3	23.8	23.9	23.5	23.4	23.5	23.9
67°	22.7	22.8	23.2	23.1	22.7	23.1	23.2	22.8	22.7	22.8	23.2

TEST NUMBER: P1214536

CATALOG NUMBER: HFL2001S/HFL2002S-930

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	22.0	22.1	22.7	22.5	22.1	22.5	22.7	22.1	22.0	22.1	22.7
68°	21.3	21.4	21.9	21.8	21.5	21.8	21.9	21.4	21.3	21.4	21.9
68.5°	20.7	20.7	21.2	21.2	20.7	21.2	21.2	20.7	20.7	20.7	21.2
69°	20.1	20.1	20.6	20.6	20.3	20.6	20.6	20.1	20.1	20.1	20.6
69.5°	19.4	19.5	20.0	19.9	19.4	19.9	20.0	19.5	19.4	19.5	20.0
70°	18.8	18.9	19.2	19.1	18.9	19.1	19.2	18.9	18.8	18.9	19.2
70.5°	18.1	18.2	18.6	18.5	18.1	18.5	18.6	18.2	18.1	18.2	18.6
71°	17.5	17.5	17.9	17.8	17.5	17.8	17.9	17.5	17.5	17.5	17.9
71.5°	16.8	16.9	17.4	17.2	16.9	17.2	17.4	16.9	16.8	16.9	17.4
72°	16.1	16.3	16.6	16.5	16.2	16.5	16.6	16.3	16.1	16.3	16.6
72.5°	15.5	15.6	16.1	15.9	15.5	15.9	16.1	15.6	15.5	15.6	16.1
73°	14.8	14.9	15.3	15.3	15.1	15.3	15.3	14.9	14.8	14.9	15.3
73.5°	14.2	14.3	14.8	14.7	14.3	14.7	14.8	14.3	14.2	14.3	14.8
74°	13.5	13.6	14.0	14.0	13.7	14.0	14.0	13.6	13.5	13.6	14.0
74.5°	12.9	13.0	13.4	13.4	13.1	13.4	13.4	13.0	12.9	13.0	13.4
75°	12.2	12.4	12.7	12.7	12.4	12.7	12.7	12.4	12.2	12.4	12.7
75.5°	11.7	11.8	12.2	12.2	11.8	12.2	12.2	11.8	11.7	11.8	12.2
76°	11.0	11.2	11.5	11.6	11.3	11.6	11.5	11.2	11.0	11.2	11.5
76.5°	10.5	10.6	10.9	11.0	10.8	11.0	10.9	10.6	10.5	10.6	10.9
77°	9.9	10.0	10.3	10.4	10.1	10.4	10.3	10.0	9.9	10.0	10.3
77.5°	9.3	9.4	9.7	10.0	9.8	10.0	9.7	9.4	9.3	9.4	9.7
78°	8.8	8.8	9.1	9.4	9.0	9.4	9.1	8.8	8.8	8.8	9.1
78.5°	8.2	8.4	8.6	8.7	8.4	8.7	8.6	8.4	8.2	8.4	8.6
79°	7.6	7.8	8.1	8.2	7.9	8.2	8.1	7.8	7.6	7.8	8.1
79.5°	7.1	7.2	7.5	7.6	7.3	7.6	7.5	7.2	7.1	7.2	7.5
80°	6.6	6.8	7.0	7.1	7.0	7.1	7.0	6.8	6.6	6.8	7.0
80.5°	6.3	6.3	6.6	6.5	6.4	6.5	6.6	6.3	6.3	6.3	6.6
81°	5.6	5.9	6.0	6.0	5.8	6.0	6.0	5.9	5.6	5.9	6.0
81.5°	5.1	5.2	5.7	5.6	5.4	5.6	5.7	5.2	5.1	5.2	5.7
82°	4.8	4.9	5.1	5.1	4.9	5.1	5.1	4.9	4.8	4.9	5.1
82.5°	4.2	4.4	4.6	4.6	4.6	4.6	4.6	4.4	4.2	4.4	4.6
83°	3.7	4.0	4.2	4.3	4.2	4.3	4.2	4.0	3.7	4.0	4.2
83.5°	3.3	3.5	3.7	3.8	3.5	3.8	3.7	3.5	3.3	3.5	3.7
84°	2.9	3.1	3.3	3.3	3.2	3.3	3.3	3.1	2.9	3.1	3.3
84.5°	2.5	2.8	3.0	3.0	3.0	3.0	3.0	2.8	2.5	2.8	3.0
85°	2.2	2.4	2.6	2.6	2.4	2.6	2.6	2.4	2.2	2.4	2.6
85.5°	1.8	2.0	2.2	2.2	2.0	2.2	2.2	2.0	1.8	2.0	2.2
86°	1.4	1.7	1.8	1.8	1.7	1.8	1.8	1.7	1.4	1.7	1.8
86.5°	1.2	1.4	1.6	1.6	1.5	1.6	1.6	1.4	1.2	1.4	1.6
87°	1.0	1.1	1.3	1.3	1.2	1.3	1.3	1.1	1.0	1.1	1.3
87.5°	0.5	0.8	1.1	1.0	0.9	1.0	1.1	0.8	0.5	0.8	1.1
88°	0.4	0.7	0.9	0.8	0.7	0.8	0.9	0.7	0.4	0.7	0.9
88.5°	0.3	0.4	0.6	0.6	0.6	0.6	0.6	0.4	0.3	0.4	0.6
89°	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	0.3	0.4
89.5°	0.2	0.2	0.3	0.4	0.5	0.4	0.3	0.2	0.2	0.2	0.3



TEST NUMBER: P1214536

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.2
90.5°	0.0	0.1	0.2	0.2	0.3	0.2	0.2	0.1	0.0	0.1	0.2
91°	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.1	0.1
91.5°	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.1
92°	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.1
92.5°	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
93°	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
93.5°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
94°	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
94.5°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
95°	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
95.5°	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
96.5°	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
98.5°	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
99.5°	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
101.5°	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1214536

CATALOG NUMBER: HFL2001S/HFL2002S-930

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1214536

CATALOG NUMBER: HFL2001S/HFL2002S-930

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1214536

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1214536

CATALOG NUMBER: HFL2001S/HFL2002S-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	72.6	72.6	72.6	72.6	72.6	72.6
0.5°	72.4	73.3	72.4	72.3	72.8	72.6
1°	72.4	73.3	72.4	72.3	72.8	72.6
1.5°	72.4	73.3	72.4	72.3	72.7	72.6
2°	72.3	73.3	72.3	72.3	72.7	72.6
2.5°	72.3	73.4	72.3	72.3	72.5	72.6
3°	72.3	73.3	72.3	72.3	72.5	72.6
3.5°	72.2	73.3	72.2	72.3	72.5	72.6
4°	72.2	73.3	72.2	72.3	72.4	72.6
4.5°	72.2	73.3	72.2	72.3	72.3	72.6
5°	72.2	73.1	72.2	72.2	72.2	72.6
5.5°	72.2	73.1	72.2	72.2	72.2	72.6
6°	72.2	73.0	72.2	72.2	72.1	72.7
6.5°	72.1	73.0	72.1	72.2	72.1	72.7
7°	72.0	73.0	72.0	72.2	72.0	72.5
7.5°	72.1	72.7	72.1	72.1	71.9	72.4
8°	72.1	72.7	72.1	72.1	71.7	72.4
8.5°	72.0	72.5	72.0	72.0	71.6	72.3
9°	72.0	72.0	72.0	71.9	71.4	72.2
9.5°	71.9	71.9	71.9	71.9	71.2	71.9
10°	71.8	71.7	71.8	71.8	71.1	71.8
10.5°	71.6	71.5	71.6	71.8	71.0	71.8
11°	71.4	71.4	71.4	71.7	71.0	71.7
11.5°	71.3	71.4	71.3	71.5	70.9	71.7
12°	71.2	71.1	71.2	71.4	70.9	71.6
12.5°	71.1	70.8	71.1	71.3	70.8	71.5
13°	71.1	70.7	71.1	71.2	70.8	71.5
13.5°	71.0	70.6	71.0	70.9	70.7	70.8
14°	70.9	70.5	70.9	70.8	70.4	70.6
14.5°	70.6	70.4	70.6	70.6	70.3	70.5
15°	70.5	70.3	70.5	70.4	69.9	70.2
15.5°	70.3	70.2	70.3	70.1	69.7	70.1
16°	70.0	69.7	70.0	69.9	69.6	69.8
16.5°	69.8	69.5	69.8	69.9	69.5	69.7
17°	69.6	69.1	69.6	69.7	69.3	69.6
17.5°	69.4	69.0	69.4	69.4	69.1	69.6
18°	69.2	68.8	69.2	69.2	68.8	69.3
18.5°	69.0	68.5	69.0	69.0	68.5	69.0
19°	68.7	68.2	68.7	68.8	68.3	68.8
19.5°	68.5	68.0	68.5	68.4	68.2	68.6
20°	68.3	67.9	68.3	68.1	67.9	68.5
20.5°	68.1	67.7	68.1	67.9	67.7	68.2
21°	67.9	67.4	67.9	67.8	67.5	68.0
21.5°	67.5	66.9	67.5	67.6	67.3	67.6
22°	67.2	66.6	67.2	67.3	67.0	67.3

TEST NUMBER: P1214536

CATALOG NUMBER: HFL2001S/HFL2002S-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	66.9	66.5	66.9	67.0	66.7	67.2
23°	66.7	66.3	66.7	66.7	66.5	66.8
23.5°	66.3	66.0	66.3	66.5	66.2	66.3
24°	66.2	65.7	66.2	66.3	65.9	66.0
24.5°	65.9	65.4	65.9	65.9	65.5	65.9
25°	65.5	65.3	65.5	65.7	65.2	65.5
25.5°	65.3	65.0	65.3	65.2	64.9	65.3
26°	64.9	64.6	64.9	64.9	64.7	64.8
26.5°	64.7	64.2	64.7	64.6	64.5	64.5
27°	64.3	64.0	64.3	64.4	64.1	64.2
27.5°	64.0	63.6	64.0	64.1	63.9	64.1
28°	63.7	63.2	63.7	63.8	63.5	63.8
28.5°	63.4	63.1	63.4	63.5	63.2	63.3
29°	63.1	62.9	63.1	63.1	62.8	63.0
29.5°	62.7	62.3	62.7	62.7	62.3	62.8
30°	62.3	61.8	62.3	62.3	62.0	62.4
30.5°	61.9	61.7	61.9	62.0	61.7	62.0
31°	61.5	61.4	61.5	61.5	61.4	61.6
31.5°	61.2	60.8	61.2	61.2	60.9	61.4
32°	60.8	60.4	60.8	60.9	60.6	60.8
32.5°	60.5	60.2	60.5	60.5	60.1	60.6
33°	60.2	59.6	60.2	60.2	59.8	60.2
33.5°	59.7	59.3	59.7	59.7	59.4	59.8
34°	59.4	59.0	59.4	59.4	59.0	59.4
34.5°	58.9	58.5	58.9	58.9	58.6	59.0
35°	58.5	58.0	58.5	58.6	58.3	58.6
35.5°	58.0	57.7	58.0	58.1	57.9	58.2
36°	57.7	57.4	57.7	57.7	57.5	57.8
36.5°	57.2	56.8	57.2	57.2	57.1	57.3
37°	56.7	56.4	56.7	56.8	56.6	56.8
37.5°	56.3	56.1	56.3	56.4	56.1	56.3
38°	55.8	55.6	55.8	55.9	55.6	56.0
38.5°	55.4	55.2	55.4	55.5	55.2	55.5
39°	54.9	54.7	54.9	55.2	54.7	55.0
39.5°	54.5	54.3	54.5	54.7	54.3	54.5
40°	54.0	53.9	54.0	54.2	53.9	54.1
40.5°	53.6	53.5	53.6	53.8	53.5	53.7
41°	53.1	53.0	53.1	53.3	53.1	53.2
41.5°	52.6	52.6	52.6	52.7	52.5	52.8
42°	52.3	52.3	52.3	52.3	51.9	52.2
42.5°	51.6	51.5	51.6	51.8	51.5	51.7
43°	51.2	51.1	51.2	51.2	51.1	51.1
43.5°	50.8	50.7	50.8	50.9	50.5	50.6
44°	50.2	50.0	50.2	50.3	50.1	50.3
44.5°	49.8	49.7	49.8	49.9	49.6	49.7

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	49.2	49.0	49.2	49.4	49.1	49.3
45.5°	48.7	48.5	48.7	48.8	48.7	49.0
46°	48.4	48.1	48.4	48.4	48.1	48.1
46.5°	47.7	47.3	47.7	47.7	47.5	47.7
47°	47.2	46.9	47.2	47.3	47.0	47.1
47.5°	46.7	46.2	46.7	46.9	46.4	46.5
48°	46.1	45.8	46.1	46.2	45.9	46.0
48.5°	45.6	45.3	45.6	45.7	45.3	45.4
49°	45.1	44.6	45.1	45.1	44.9	44.9
49.5°	44.5	44.1	44.5	44.5	44.3	44.3
50°	44.0	43.5	44.0	44.1	43.7	43.9
50.5°	43.4	42.9	43.4	43.4	43.1	43.4
51°	42.8	42.4	42.8	42.9	42.6	42.8
51.5°	42.2	41.8	42.2	42.3	41.9	42.3
52°	41.7	41.3	41.7	41.7	41.4	41.6
52.5°	41.1	40.7	41.1	41.1	40.8	41.0
53°	40.5	40.2	40.5	40.5	40.3	40.4
53.5°	40.0	39.5	40.0	40.0	39.7	39.8
54°	39.3	38.9	39.3	39.3	39.0	39.2
54.5°	38.7	38.3	38.7	38.8	38.4	38.7
55°	38.1	37.7	38.1	38.1	37.8	38.2
55.5°	37.6	37.2	37.6	37.6	37.2	37.5
56°	36.9	36.5	36.9	37.0	36.6	37.0
56.5°	36.3	36.2	36.3	36.4	36.0	36.3
57°	35.6	35.3	35.6	35.8	35.4	35.6
57.5°	35.0	34.9	35.0	35.2	34.8	34.9
58°	34.4	34.1	34.4	34.7	34.3	34.3
58.5°	33.8	33.6	33.8	33.9	33.6	33.8
59°	33.2	32.9	33.2	33.4	33.0	33.1
59.5°	32.6	32.3	32.6	32.7	32.3	32.4
60°	32.0	31.6	32.0	32.1	31.6	31.8
60.5°	31.3	31.0	31.3	31.4	31.0	31.1
61°	30.7	30.4	30.7	30.8	30.4	30.5
61.5°	30.1	29.6	30.1	30.2	29.7	30.0
62°	29.5	29.1	29.5	29.6	29.2	29.3
62.5°	28.9	28.4	28.9	28.9	28.5	28.7
63°	28.2	27.9	28.2	28.3	27.9	28.0
63.5°	27.7	27.3	27.7	27.7	27.3	27.5
64°	27.1	26.7	27.1	27.1	26.8	26.8
64.5°	26.4	26.0	26.4	26.5	26.1	26.1
65°	25.8	25.5	25.8	25.8	25.4	25.5
65.5°	25.1	24.7	25.1	25.4	24.8	24.7
66°	24.5	24.2	24.5	24.5	24.1	24.0
66.5°	23.8	23.3	23.8	23.9	23.5	23.4
67°	23.1	22.7	23.1	23.2	22.8	22.7

TEST NUMBER: P1214536

CATALOG NUMBER: HFL2001S/HFL2002S-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	22.5	22.1	22.5	22.7	22.1	22.0
68°	21.8	21.5	21.8	21.9	21.4	21.3
68.5°	21.2	20.7	21.2	21.2	20.7	20.7
69°	20.6	20.3	20.6	20.6	20.1	20.1
69.5°	19.9	19.4	19.9	20.0	19.5	19.4
70°	19.1	18.9	19.1	19.2	18.9	18.8
70.5°	18.5	18.1	18.5	18.6	18.2	18.1
71°	17.8	17.5	17.8	17.9	17.5	17.5
71.5°	17.2	16.9	17.2	17.4	16.9	16.8
72°	16.5	16.2	16.5	16.6	16.3	16.1
72.5°	15.9	15.5	15.9	16.1	15.6	15.5
73°	15.3	15.1	15.3	15.3	14.9	14.8
73.5°	14.7	14.3	14.7	14.8	14.3	14.2
74°	14.0	13.7	14.0	14.0	13.6	13.5
74.5°	13.4	13.1	13.4	13.4	13.0	12.9
75°	12.7	12.4	12.7	12.7	12.4	12.2
75.5°	12.2	11.8	12.2	12.2	11.8	11.7
76°	11.6	11.3	11.6	11.5	11.2	11.0
76.5°	11.0	10.8	11.0	10.9	10.6	10.5
77°	10.4	10.1	10.4	10.3	10.0	9.9
77.5°	10.0	9.8	10.0	9.7	9.4	9.3
78°	9.4	9.0	9.4	9.1	8.8	8.8
78.5°	8.7	8.4	8.7	8.6	8.4	8.2
79°	8.2	7.9	8.2	8.1	7.8	7.6
79.5°	7.6	7.3	7.6	7.5	7.2	7.1
80°	7.1	7.0	7.1	7.0	6.8	6.6
80.5°	6.5	6.4	6.5	6.6	6.3	6.3
81°	6.0	5.8	6.0	6.0	5.9	5.6
81.5°	5.6	5.4	5.6	5.7	5.2	5.1
82°	5.1	4.9	5.1	5.1	4.9	4.8
82.5°	4.6	4.6	4.6	4.6	4.4	4.2
83°	4.3	4.2	4.3	4.2	4.0	3.7
83.5°	3.8	3.5	3.8	3.7	3.5	3.3
84°	3.3	3.2	3.3	3.3	3.1	2.9
84.5°	3.0	3.0	3.0	3.0	2.8	2.5
85°	2.6	2.4	2.6	2.6	2.4	2.2
85.5°	2.2	2.0	2.2	2.2	2.0	1.8
86°	1.8	1.7	1.8	1.8	1.7	1.4
86.5°	1.6	1.5	1.6	1.6	1.4	1.2
87°	1.3	1.2	1.3	1.3	1.1	1.0
87.5°	1.0	0.9	1.0	1.1	0.8	0.5
88°	0.8	0.7	0.8	0.9	0.7	0.4
88.5°	0.6	0.6	0.6	0.6	0.4	0.3
89°	0.5	0.5	0.5	0.4	0.3	0.2
89.5°	0.4	0.5	0.4	0.3	0.2	0.2

TEST NUMBER: P1214536

CATALOG NUMBER: HFL2001S/HFL2002S-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.3	0.3	0.3	0.2	0.2	0.1
90.5°	0.2	0.3	0.2	0.2	0.1	0.0
91°	0.2	0.2	0.2	0.1	0.1	0.0
91.5°	0.1	0.2	0.1	0.1	0.1	0.0
92°	0.1	0.2	0.1	0.1	0.1	0.0
92.5°	0.1	0.1	0.1	0.1	0.1	0.0
93°	0.1	0.1	0.1	0.1	0.1	0.0
93.5°	0.1	0.1	0.1	0.1	0.0	0.0
94°	0.1	0.1	0.1	0.1	0.1	0.0
94.5°	0.1	0.1	0.1	0.1	0.0	0.0
95°	0.1	0.1	0.1	0.0	0.0	0.0
95.5°	0.1	0.1	0.1	0.0	0.0	0.0
96°	0.1	0.1	0.1	0.0	0.0	0.0
96.5°	0.1	0.1	0.1	0.0	0.0	0.0
97°	0.1	0.1	0.1	0.0	0.0	0.0
97.5°	0.1	0.0	0.1	0.0	0.0	0.0
98°	0.1	0.0	0.1	0.0	0.0	0.0
98.5°	0.1	0.0	0.1	0.0	0.0	0.0
99°	0.1	0.0	0.1	0.0	0.0	0.0
99.5°	0.1	0.0	0.1	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0
100.5°	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.1	0.0	0.1	0.0	0.0	0.0
101.5°	0.1	0.0	0.1	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0
103.5°	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0
104.5°	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0
105.5°	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0
106.5°	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0
108.5°	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0
109.5°	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0
110.5°	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0
111.5°	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1214536

CATALOG NUMBER: HFL2001S/HFL2002S-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0
113.5°	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0
114.5°	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0
115.5°	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0
116.5°	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0
118.5°	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0
119.5°	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0
120.5°	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0
121.5°	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0
123.5°	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0
124.5°	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0
125.5°	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0
126.5°	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0
128.5°	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0
129.5°	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0
130.5°	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0
131.5°	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0
133.5°	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0
134.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1214536

CATALOG NUMBER: HFL2001S/HFL2002S-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
135°	0.0	0.0	0.0	0.0	0.0	0.0
135.5°	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0
136.5°	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0
138.5°	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0
139.5°	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0
140.5°	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0
141.5°	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0
143.5°	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0
144.5°	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0
145.5°	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0
146.5°	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0
148.5°	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0
149.5°	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0
150.5°	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0
151.5°	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0
153.5°	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0
154.5°	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0
155.5°	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0
156.5°	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1214536

CATALOG NUMBER: HFL2001S/HFL2002S-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
157.5°	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0
158.5°	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0
159.5°	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0
160.5°	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0
161.5°	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0
163.5°	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0
164.5°	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0
165.5°	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0
166.5°	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0
168.5°	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0
169.5°	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0
170.5°	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0
171.5°	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0
173.5°	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0
174.5°	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0
175.5°	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0
176.5°	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0
178.5°	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0
179.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1214536

CATALOG NUMBER: HFL2001S/HFL2002S-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
180°	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1214536

CATALOG NUMBER: HFL2001S/HFL2002S-930

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room Dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	23.2	24.8	23.5	25.1	25.4	23.2	24.8	23.6	25.1	25.5
	3H	24.8	26.3	25.2	26.7	27.0	24.9	26.4	25.3	26.7	27.1
	4H	25.4	26.8	25.8	27.1	27.5	25.5	26.9	25.9	27.2	27.6
	6H	25.8	27.1	26.2	27.4	27.8	25.9	27.2	26.3	27.5	27.9
	8H	25.9	27.1	26.3	27.5	27.9	26.0	27.2	26.4	27.6	28.0
	12H	25.9	27.1	26.3	27.5	27.9	26.0	27.2	26.4	27.6	28.0
4H	2H	23.8	25.2	24.2	25.5	25.9	23.8	25.2	24.2	25.6	25.9
	3H	25.7	26.9	26.1	27.2	27.6	25.7	26.9	26.1	27.3	27.7
	4H	26.4	27.4	26.8	27.8	28.3	26.4	27.5	26.9	27.9	28.3
	6H	26.8	27.7	27.3	28.2	28.6	26.9	27.8	27.4	28.3	28.7
	8H	26.9	27.8	27.4	28.2	28.7	27.1	27.9	27.5	28.4	28.8
	12H	27.0	27.8	27.5	28.2	28.7	27.1	27.9	27.6	28.4	28.9
8H	4H	26.6	27.5	27.1	27.9	28.4	26.7	27.6	27.2	28.0	28.5
	6H	27.2	27.9	27.7	28.4	28.9	27.3	28.0	27.8	28.5	29.0
	8H	27.4	28.0	27.9	28.5	29.0	27.5	28.1	28.0	28.6	29.1
	12H	27.5	28.0	28.0	28.5	29.1	27.6	28.2	28.1	28.7	29.2
12H	4H	26.7	27.4	27.1	27.9	28.4	26.7	27.5	27.2	28.0	28.4
	6H	27.2	27.9	27.8	28.3	28.9	27.3	28.0	27.9	28.4	29.0
	8H	27.4	28.0	27.9	28.5	29.1	27.6	28.1	28.1	28.6	29.2

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Halo Track & Surface

Report Number: SP1-2509-560-2

Test Date: 10/10/2025

Luminaire Tested: HFLESD4-HFL4001S-HFLP60A-930

Data in this report applies to families of products including HFLESD4-HFL4001S-HFLP60A*

The results of this test have not been influenced by sources from within Eaton or from external interests.

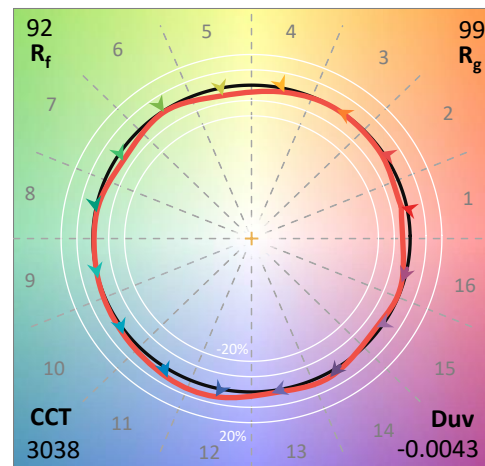
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.05

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2509-560-2
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/20/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Halo Track & Surface
 Catalog Number: **HFLESD4-HFL4001S-HFLP60A-930**
 Description: HALO FLEX LINEAR 4 SURFACE MOUNT DEEP 400LM/FT 60W UNV

Spectral Parameters

CCT (K):	3038	CRI (Ra):	94.5		
CIE u':	0.2508	R1:	98.2	R9:	75.3
CIE v':	0.5146	R2:	97.4	R10:	96.1
Duv:	-0.0043	R3:	95.8	R11:	97.6
CIE x:	0.4282	R4:	95.8	R12:	82.2
CIE y:	0.3905	R5:	97.6	R13:	99.0
CIE z:	0.1812	R6:	93.3	R14:	98.8
Peak Wavelength (nm):	618	R7:	90.9	R15:	96.0
Dominant Wavelength (nm):	584	R8:	86.8		
Purity:	45.7				
Rf:	91.7				
Rg:	98.9				



Test Conditions

Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 25.3

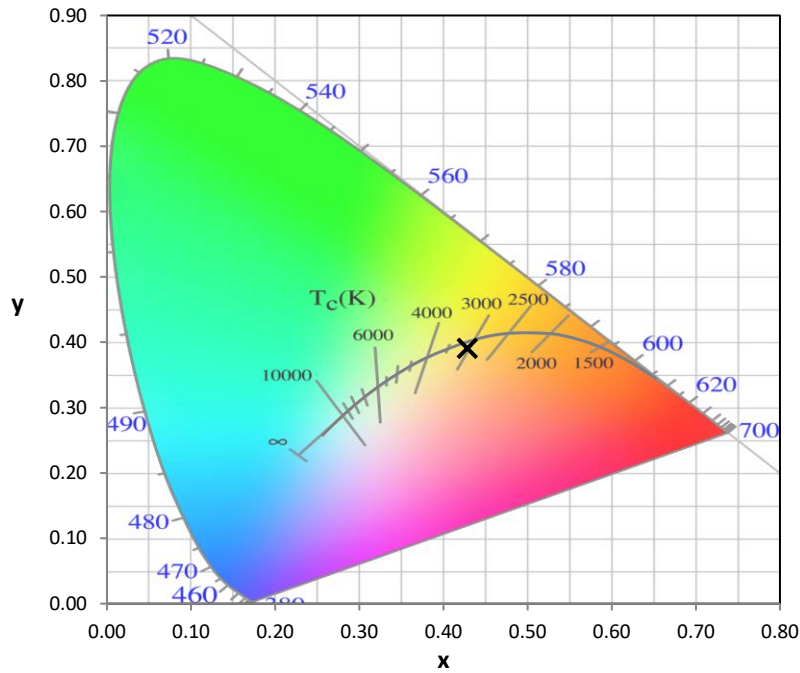
REPORT NUMBER: SP1-2509-560-2

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	10/22/2024	10/22/2025
Sphere Thermometer	ONSET IN0085	10/22/2024	10/22/2025
Room Thermometer	ONSET IN0046	10/22/2024	10/22/2025

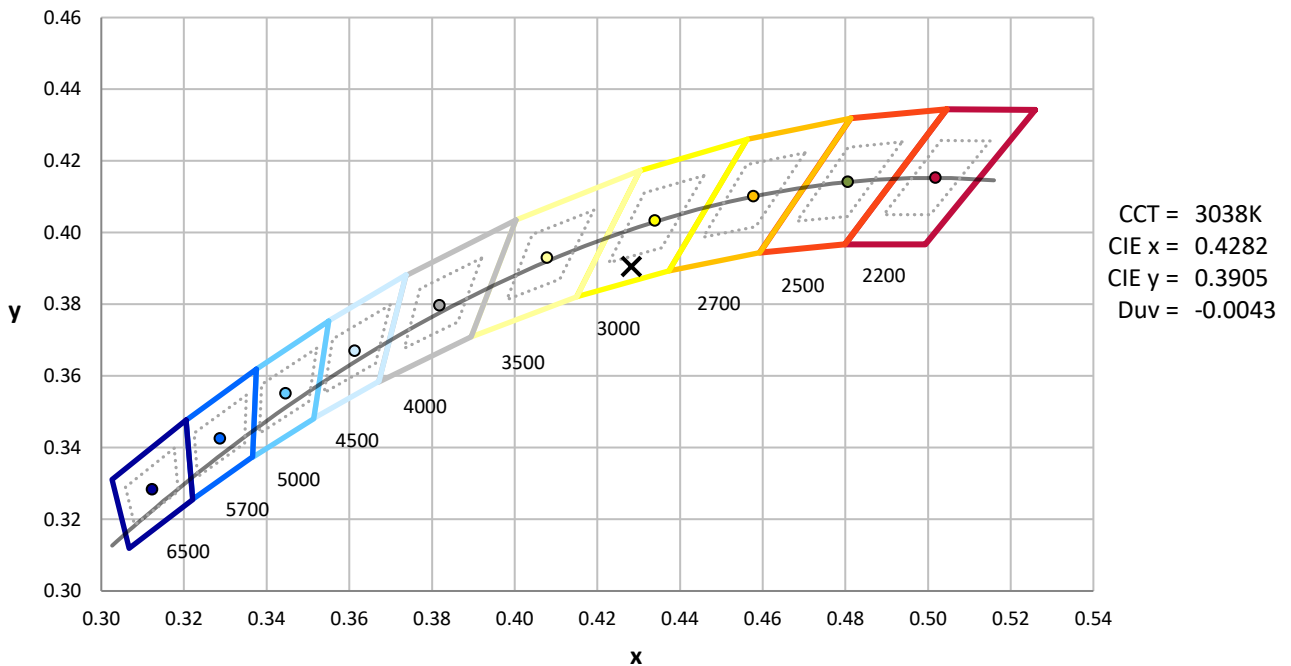
Sample Number	Condition	Description
P2509-560-LM.4	Good	EX LINEAR 4' SURFACE MOUNT DEEP, 400LM/FT 6

REPORT NUMBER: SP1-2509-560-2

CIE 1931 Chromaticity Diagram



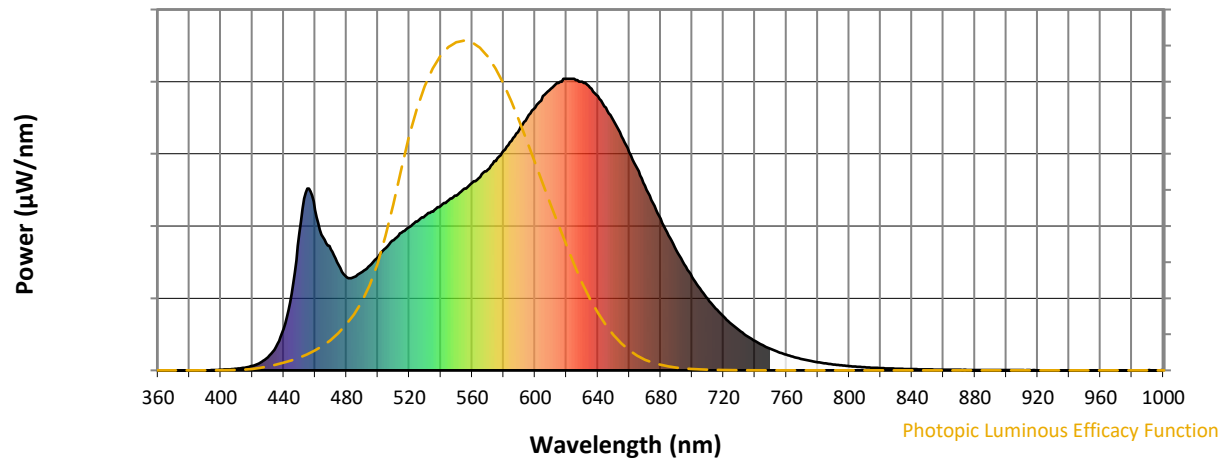
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 7-step quadrangle

REPORT NUMBER: SP1-2509-560-2

Photopic Flux vs. Wavelength

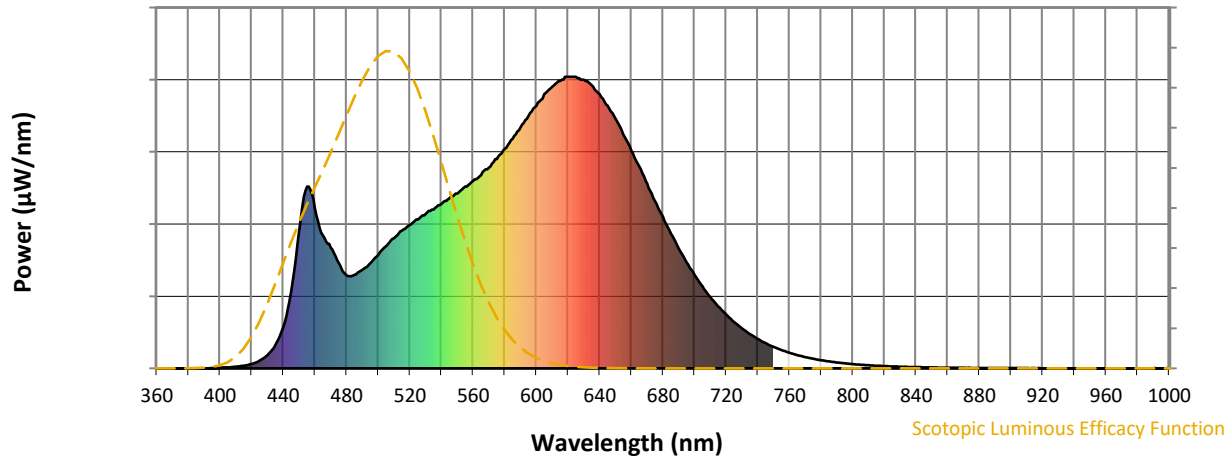


Photopic Lumens: NR

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	339	NR	620	1000	NR	750	73	NR	880	1	NR
365	0	NR	495	360	NR	625	1000	NR	755	63	NR	885	1	NR
370	0	NR	500	389	NR	630	990	NR	760	53	NR	890	1	NR
375	0	NR	505	419	NR	635	970	NR	765	46	NR	895	1	NR
380	0	NR	510	447	NR	640	941	NR	770	39	NR	900	1	NR
385	0	NR	515	472	NR	645	901	NR	775	33	NR	905	1	NR
390	0	NR	520	492	NR	650	856	NR	780	28	NR	910	1	NR
395	1	NR	525	510	NR	655	802	NR	785	24	NR	915	1	NR
400	2	NR	530	530	NR	660	748	NR	790	20	NR	920	1	NR
405	3	NR	535	545	NR	665	693	NR	795	17	NR	925	0	NR
410	6	NR	540	564	NR	670	634	NR	800	15	NR	930	0	NR
415	9	NR	545	584	NR	675	574	NR	805	13	NR	935	1	NR
420	15	NR	550	599	NR	680	520	NR	810	11	NR	940	0	NR
425	26	NR	555	624	NR	685	462	NR	815	9	NR	945	0	NR
430	45	NR	560	644	NR	690	412	NR	820	8	NR	950	0	NR
435	81	NR	565	663	NR	695	364	NR	825	7	NR	955	0	NR
440	143	NR	570	688	NR	700	320	NR	830	6	NR	960	0	NR
445	263	NR	575	718	NR	705	281	NR	835	5	NR	965	0	NR
450	471	NR	580	752	NR	710	245	NR	840	4	NR	970	0	NR
455	624	NR	585	787	NR	715	212	NR	845	4	NR	975	0	NR
460	550	NR	590	827	NR	720	185	NR	850	3	NR	980	0	NR
465	457	NR	595	866	NR	725	159	NR	855	3	NR	985	0	NR
470	413	NR	600	901	NR	730	137	NR	860	2	NR	990	0	NR
475	361	NR	605	941	NR	735	117	NR	865	2	NR	995	0	NR
480	320	NR	610	965	NR	740	100	NR	870	2	NR	1000	0	NR
485	321	NR	615	985	NR	745	87	NR	875	2	NR			

REPORT NUMBER: SP1-2509-560-2

Scotopic Flux vs. Wavelength



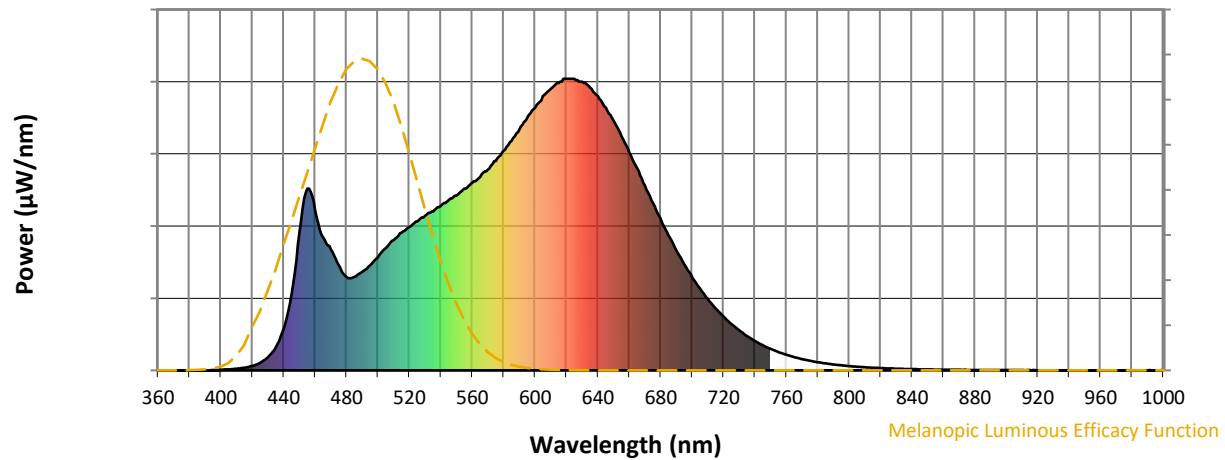
Scotopic Lumens: NR

S/P: 1.53

λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	339	NR	620	1000	NR	750	73	NR	880	1	NR
365	0	NR	495	360	NR	625	1000	NR	755	63	NR	885	1	NR
370	0	NR	500	389	NR	630	990	NR	760	53	NR	890	1	NR
375	0	NR	505	419	NR	635	970	NR	765	46	NR	895	1	NR
380	0	NR	510	447	NR	640	941	NR	770	39	NR	900	1	NR
385	0	NR	515	472	NR	645	901	NR	775	33	NR	905	1	NR
390	0	NR	520	492	NR	650	856	NR	780	28	NR	910	1	NR
395	1	NR	525	510	NR	655	802	NR	785	24	NR	915	1	NR
400	2	NR	530	530	NR	660	748	NR	790	20	NR	920	1	NR
405	3	NR	535	545	NR	665	693	NR	795	17	NR	925	0	NR
410	6	NR	540	564	NR	670	634	NR	800	15	NR	930	0	NR
415	9	NR	545	584	NR	675	574	NR	805	13	NR	935	1	NR
420	15	NR	550	599	NR	680	520	NR	810	11	NR	940	0	NR
425	26	NR	555	624	NR	685	462	NR	815	9	NR	945	0	NR
430	45	NR	560	644	NR	690	412	NR	820	8	NR	950	0	NR
435	81	NR	565	663	NR	695	364	NR	825	7	NR	955	0	NR
440	143	NR	570	688	NR	700	320	NR	830	6	NR	960	0	NR
445	263	NR	575	718	NR	705	281	NR	835	5	NR	965	0	NR
450	471	NR	580	752	NR	710	245	NR	840	4	NR	970	0	NR
455	624	NR	585	787	NR	715	212	NR	845	4	NR	975	0	NR
460	550	NR	590	827	NR	720	185	NR	850	3	NR	980	0	NR
465	457	NR	595	866	NR	725	159	NR	855	3	NR	985	0	NR
470	413	NR	600	901	NR	730	137	NR	860	2	NR	990	0	NR
475	361	NR	605	941	NR	735	117	NR	865	2	NR	995	0	NR
480	320	NR	610	965	NR	740	100	NR	870	2	NR	1000	0	NR
485	321	NR	615	985	NR	745	87	NR	875	2	NR			

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Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 3.12

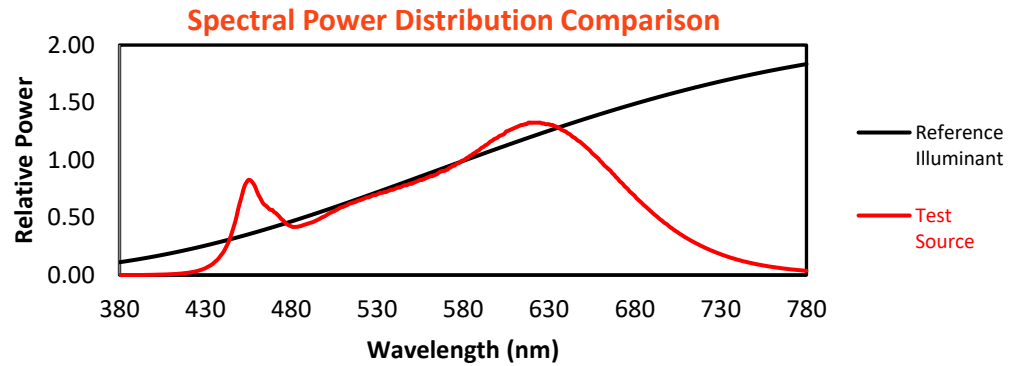
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	339	NR	620	1000	NR	750	73	NR	880	1	NR
365	0	NR	495	360	NR	625	1000	NR	755	63	NR	885	1	NR
370	0	NR	500	389	NR	630	990	NR	760	53	NR	890	1	NR
375	0	NR	505	419	NR	635	970	NR	765	46	NR	895	1	NR
380	0	NR	510	447	NR	640	941	NR	770	39	NR	900	1	NR
385	0	NR	515	472	NR	645	901	NR	775	33	NR	905	1	NR
390	0	NR	520	492	NR	650	856	NR	780	28	NR	910	1	NR
395	1	NR	525	510	NR	655	802	NR	785	24	NR	915	1	NR
400	2	NR	530	530	NR	660	748	NR	790	20	NR	920	1	NR
405	3	NR	535	545	NR	665	693	NR	795	17	NR	925	0	NR
410	6	NR	540	564	NR	670	634	NR	800	15	NR	930	0	NR
415	9	NR	545	584	NR	675	574	NR	805	13	NR	935	1	NR
420	15	NR	550	599	NR	680	520	NR	810	11	NR	940	0	NR
425	26	NR	555	624	NR	685	462	NR	815	9	NR	945	0	NR
430	45	NR	560	644	NR	690	412	NR	820	8	NR	950	0	NR
435	81	NR	565	663	NR	695	364	NR	825	7	NR	955	0	NR
440	143	NR	570	688	NR	700	320	NR	830	6	NR	960	0	NR
445	263	NR	575	718	NR	705	281	NR	835	5	NR	965	0	NR
450	471	NR	580	752	NR	710	245	NR	840	4	NR	970	0	NR
455	624	NR	585	787	NR	715	212	NR	845	4	NR	975	0	NR
460	550	NR	590	827	NR	720	185	NR	850	3	NR	980	0	NR
465	457	NR	595	866	NR	725	159	NR	855	3	NR	985	0	NR
470	413	NR	600	901	NR	730	137	NR	860	2	NR	990	0	NR
475	361	NR	605	941	NR	735	117	NR	865	2	NR	995	0	NR
480	320	NR	610	965	NR	740	100	NR	870	2	NR	1000	0	NR
485	321	NR	615	985	NR	745	87	NR	875	2	NR			

REPORT NUMBER: SP1-2509-560-2

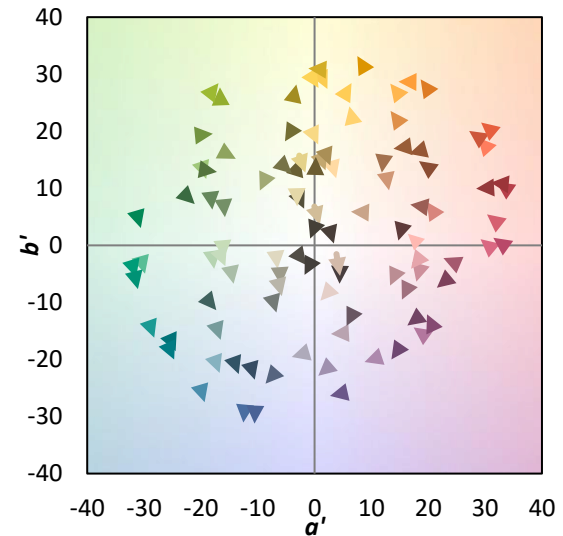
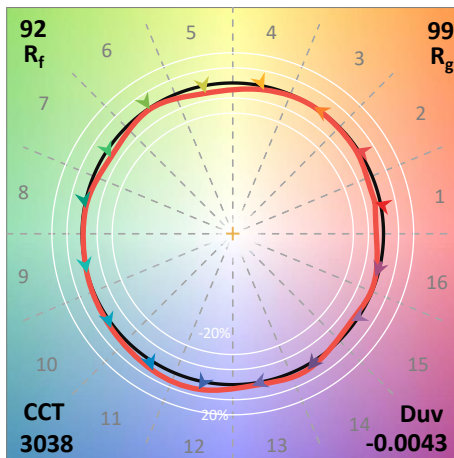
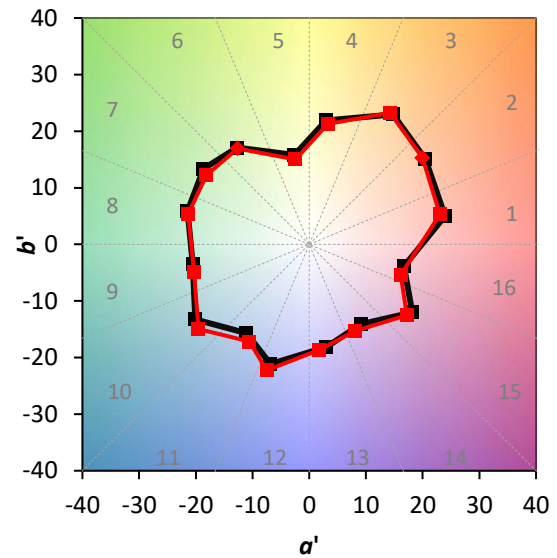
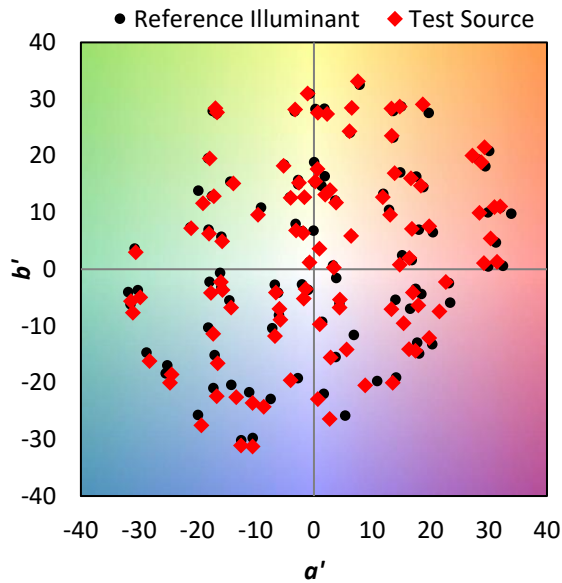
TM-30-18

Summary

$R_f = 91.7$
 $R_g = 98.9$
 $\text{CIE } R_a = 94.5$
 $R_9 = 75.3$

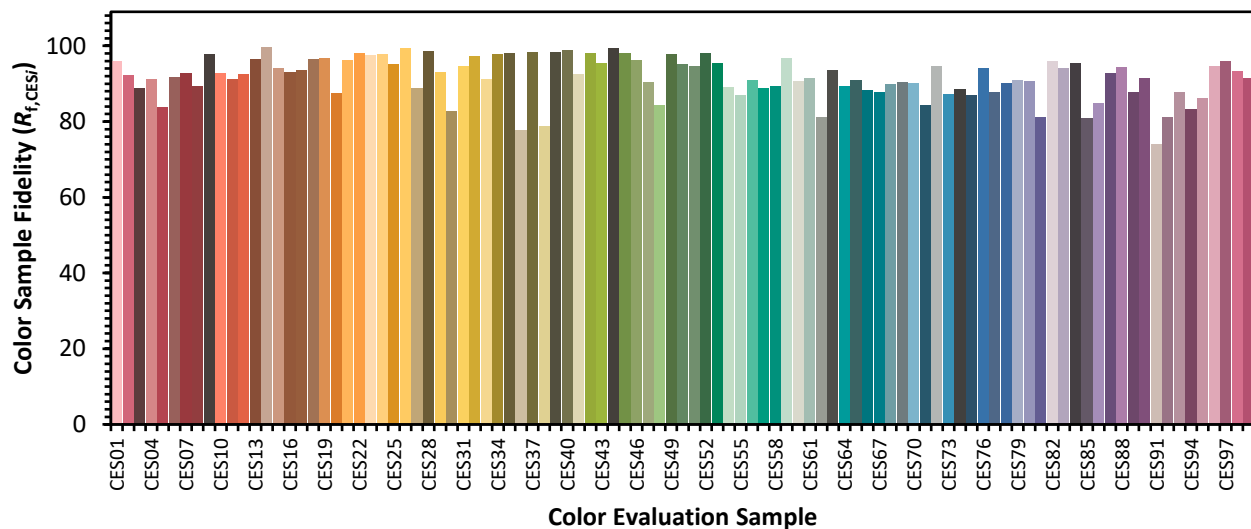


Color Vector Graphics

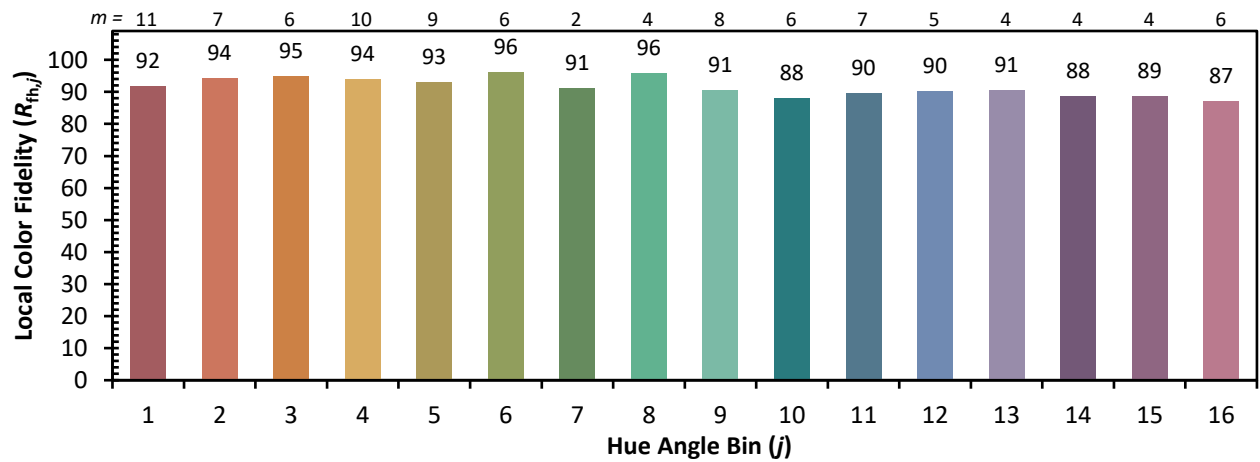
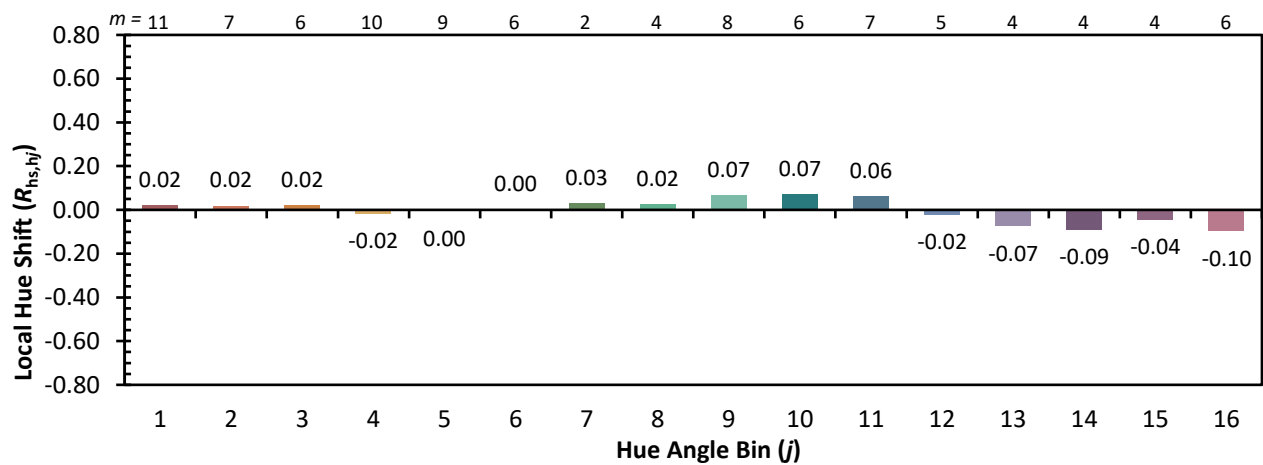
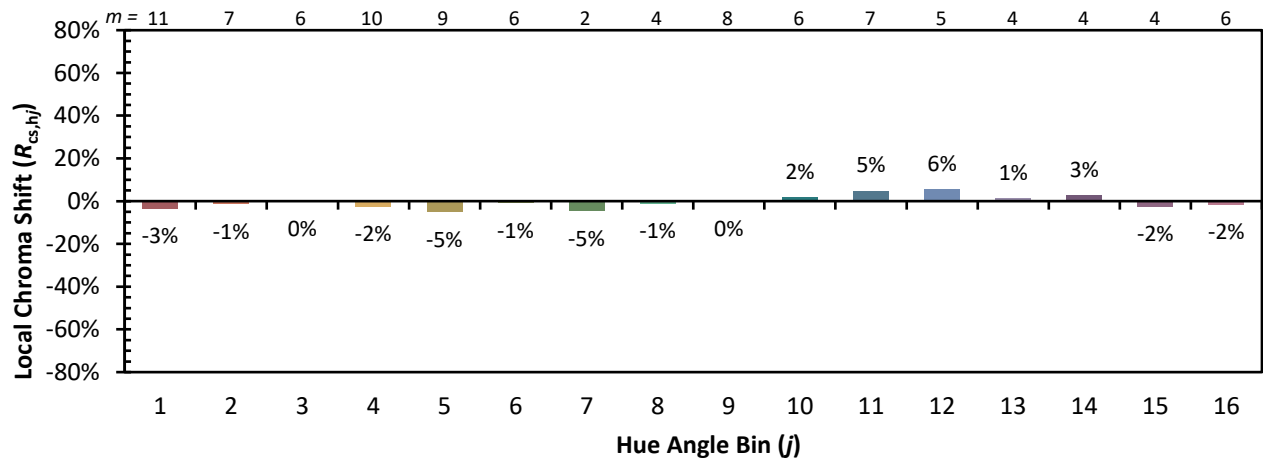


Individual Sample Fidelity Index ($R_{f,i}$)

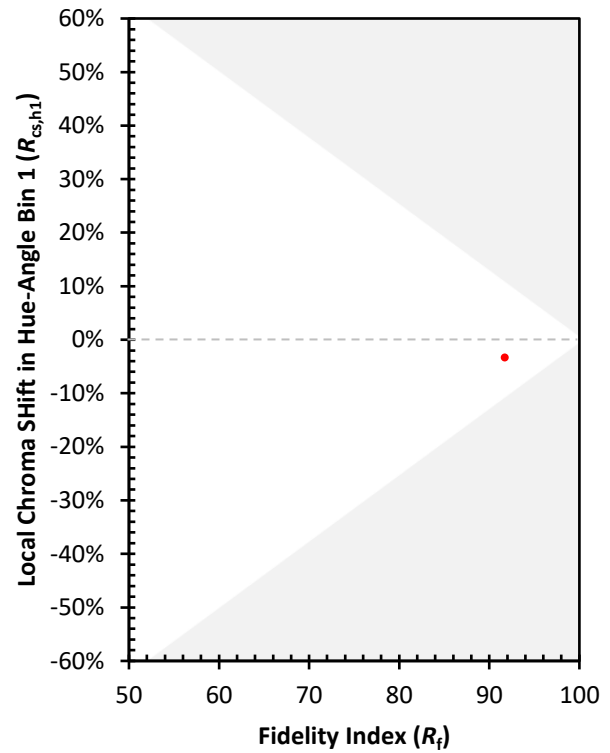
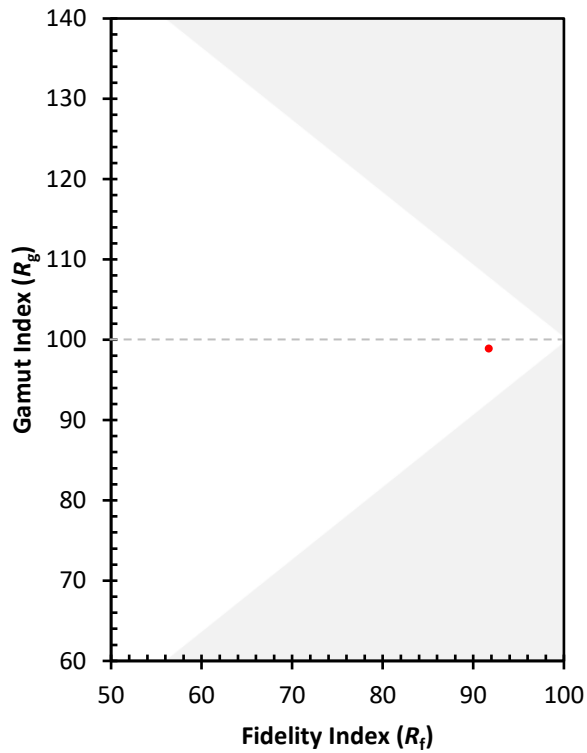
CES01 = 86	CES26 = 99	CES51 = 95	CES76 = 94
CES02 = 63	CES27 = 89	CES52 = 98	CES77 = 88
CES03 = 32	CES28 = 99	CES53 = 95	CES78 = 90
CES04 = 70	CES29 = 93	CES54 = 89	CES79 = 91
CES05 = 51	CES30 = 83	CES55 = 87	CES80 = 91
CES06 = 51	CES31 = 95	CES56 = 91	CES81 = 81
CES07 = 44	CES32 = 97	CES57 = 89	CES82 = 96
CES08 = 42	CES33 = 91	CES58 = 89	CES83 = 94
CES09 = 29	CES34 = 98	CES59 = 97	CES84 = 96
CES10 = 76	CES35 = 98	CES60 = 91	CES85 = 81
CES11 = 59	CES36 = 78	CES61 = 92	CES86 = 85
CES12 = 65	CES37 = 98	CES62 = 81	CES87 = 93
CES13 = 44	CES38 = 79	CES63 = 94	CES88 = 94
CES14 = 74	CES39 = 98	CES64 = 89	CES89 = 88
CES15 = 72	CES40 = 99	CES65 = 91	CES90 = 91
CES16 = 48	CES41 = 93	CES66 = 88	CES91 = 74
CES17 = 50	CES42 = 98	CES67 = 88	CES92 = 81
CES18 = 57	CES43 = 95	CES68 = 90	CES93 = 88
CES19 = 72	CES44 = 99	CES69 = 90	CES94 = 83
CES20 = 67	CES45 = 98	CES70 = 90	CES95 = 86
CES21 = 86	CES46 = 96	CES71 = 84	CES96 = 95
CES22 = 79	CES47 = 90	CES72 = 95	CES97 = 96
CES23 = 92	CES48 = 84	CES73 = 87	CES98 = 93
CES24 = 90	CES49 = 98	CES74 = 89	CES99 = 92
CES25 = 72	CES50 = 95	CES75 = 87	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)