

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO

Report Number: P1431937

Luminaire Tested: **HSLUNVMW-4000K**

Issue Date: 3/16/2026



Test Information

Test Method: LM-79-08
Report Number: P1431937
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (UTU2511015E-A)
Test Lab: INNOVATION CENTER
Issue Date: 3/16/2026
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HSLUNVMW-4000K
Description: Marker - Low Diff (Default)

Light Source:
Ballast/Driver: ELECTRONIC DRIVER

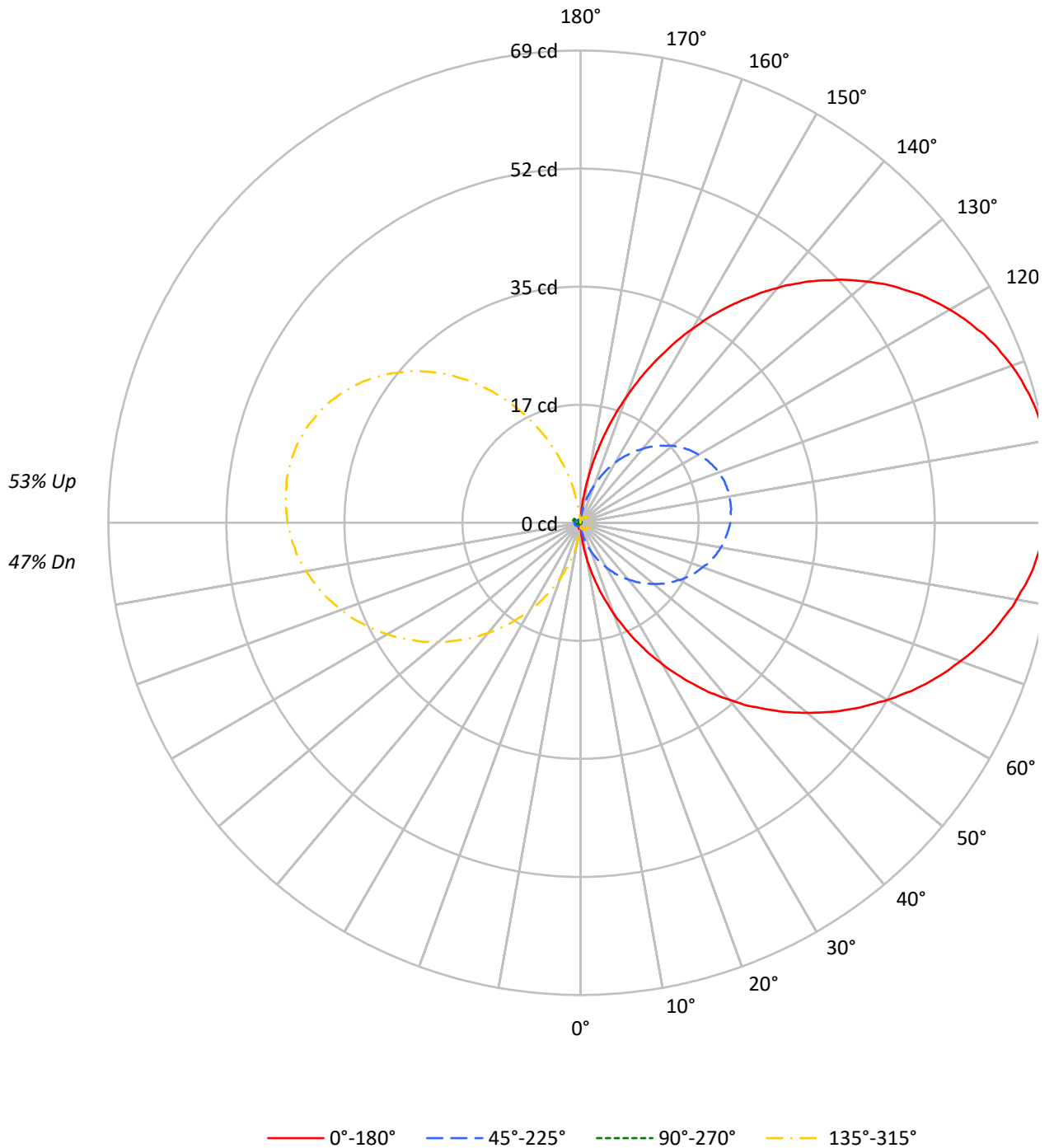
Summary

Lumens per Lamp: 155.9 (1 lamp)
Luminaire Lumens: 170.0 lumens
Efficiency: 109.0%
Efficacy: 44.7 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.27' x L: 0.43' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 3.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: >0.9
Total Harmonic Distortion (THDi): <20
Frequency (hertz): 60
Stabilization Time: HR
Operation Time: HR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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CATALOG NUMBER: HSLUNVMW-4000K

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

	RF	20		20		20		20		20		20		20		20		
	RC	80		70		50		30		10		50		30		10		
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
	RCR																	
0°	0	116	116	116	116	106	106	106	106	89	89	89	73	73	73	58	58	58
1°	1	99	92	85	79	90	84	78	73	68	64	60	54	51	48	41	38	36
2°	2	88	77	68	60	80	70	62	55	56	50	45	44	39	35	33	29	26
3°	3	79	66	55	47	71	59	50	43	48	41	35	37	32	27	27	23	19
4°	4	71	57	46	38	64	51	42	35	41	34	28	32	26	21	23	19	15
5°	5	65	50	39	31	58	45	36	29	36	29	23	28	22	17	20	16	12
6°	6	59	44	34	26	53	40	31	24	32	25	19	25	19	15	18	13	10
7°	7	55	39	29	22	49	36	27	20	29	22	16	22	16	12	16	12	8
8°	8	50	35	26	19	45	32	23	18	26	19	14	20	15	11	14	10	7
9°	9	47	32	23	17	42	29	21	15	23	17	12	18	13	9	13	9	6
10°	10	43	29	20	15	39	26	19	13	21	15	11	17	12	8	12	8	5

110°

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	0	0	0	0
5°	186	0	9	0
10°	508	0	85	0
15°	911	0	77	0
20°	1391	0	69	0
25°	1933	0	72	0
30°	2547	0	64	11
35°	3258	0	68	11
40°	4077	12	60	12
45°	5059	13	66	13
50°	6228	0	43	29
55°	7691	0	48	32
60°	9601	19	56	56
65°	12214	22	66	66
70°	16013	27	81	108
75°	22271	36	107	179
80°	34529	53	160	320
85°	70922	106	319	638



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ZONAL LUMENS:					CANDELA DISTRIBUTION:					
	Zone	Lumens	% Fixture	% Lamp		0°	90°	180°	270°	360°
20	0°-10°	0.1	0.1	0.1	0°	0	0	0	0	0
0	10°-20°	0.8	0.5	0.5	5°	2	0	0	0	2
	20°-30°	2.4	1.4	1.6	15°	10	0	1	0	10
51	30°-40°	4.9	2.9	3.1	25°	19	0	1	0	19
30	40°-50°	8.0	4.7	5.1	35°	29	0	1	0	29
20	50°-60°	11.4	6.7	7.3	45°	39	0	0	0	39
14	60°-70°	14.7	8.6	9.4	55°	48	0	0	0	48
11	70°-80°	17.5	10.3	11.2	65°	56	0	0	0	56
8	80°-90°	19.3	11.4	12.4	75°	62	0	0	0	62
6	90°-100°	19.9	11.7	12.8	85°	67	0	0	1	67
5	100°-110°	19.1	11.3	12.3	90°	68	0	0	1	68
4	110°-120°	17.0	10.0	10.9	95°	69	0	0	1	69
4	120°-130°	13.9	8.2	8.9	105°	68	0	0	1	68
3	130°-140°	10.2	6.0	6.5	115°	65	0	0	1	65
	140°-150°	6.4	3.8	4.1	125°	59	0	0	1	59
	150°-160°	3.2	1.9	2.1	135°	50	0	0	1	50
	160°-170°	1.0	0.6	0.7	145°	39	0	0	0	39
	170°-180°	0.1	0.0	0.0	155°	26	0	0	0	26
	0°-30°	3.3	2.0	2.1	165°	13	0	0	0	13
	0°-40°	8.2	4.9	5.3	175°	2	0	0	0	2
	0°-60°	27.6	16.3	17.7	180°	0	0	0	0	0
	0°-90°	79.1	46.5	50.7						
	90°-120°	56.1	33.0	36.0						
	90°-150°	86.6	50.9	55.5						
	90°-180°	91.0	53.5	58.4						
	0°-180°	170.0	100.0	109.0						



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CANDELA DISTRIBUTION (FULL):

Flux		0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°
	0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	1°	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3	2°	0.4	0.3	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0
9	3°	0.8	0.5	0.2	0.1	0.0	0.1	0.0	0.1	0.1	0.0
18	4°	1.4	0.9	0.4	0.1	0.0	0.1	0.1	0.1	0.1	0.0
30	5°	2.0	1.2	0.6	0.2	0.0	0.1	0.1	0.1	0.1	0.1
43	6°	2.6	1.6	0.8	0.2	0.0	0.1	0.1	0.2	0.2	0.1
55	7°	3.2	1.9	1.0	0.3	0.0	0.2	0.1	0.4	0.5	0.3
66	8°	4.0	2.4	1.2	0.3	0.0	0.2	0.2	0.6	0.7	0.4
54	9°	4.7	2.8	1.5	0.4	0.0	0.3	0.4	0.8	0.9	0.5
37	10°	5.4	3.2	1.7	0.5	0.0	0.3	0.6	0.9	0.9	0.6
56	11°	6.2	3.7	2.0	0.6	0.0	0.4	0.7	1.0	0.9	0.6
72	12°	6.9	4.2	2.2	0.7	0.0	0.4	0.9	1.0	0.9	0.7
64	13°	7.8	4.7	2.4	0.7	0.0	0.5	0.9	1.0	0.9	0.6
53	14°	8.6	5.2	2.7	0.8	0.0	0.7	1.0	0.9	0.9	0.6
39	15°	9.5	5.7	3.0	0.9	0.0	0.8	1.0	0.9	0.8	0.6
25	16°	10.4	6.3	3.3	1.0	0.0	1.0	1.0	0.9	0.8	0.6
12	17°	11.3	6.8	3.5	1.1	0.0	1.2	1.0	0.9	0.8	0.6
4	18°	12.1	7.3	3.8	1.1	0.0	1.5	1.0	0.9	0.8	0.6
0	19°	13.1	7.9	4.1	1.2	0.0	1.7	1.0	0.9	0.8	0.6
	20°	14.1	8.5	4.4	1.3	0.0	1.9	1.0	0.9	0.7	0.6
	21°	15.0	9.0	4.7	1.4	0.0	2.1	1.0	0.8	0.7	0.6
	22°	15.9	9.6	5.0	1.5	0.0	2.2	1.0	0.8	0.7	0.6
	23°	16.9	10.2	5.3	1.6	0.0	2.3	1.0	0.8	0.7	0.6
	24°	17.9	10.8	5.6	1.7	0.0	2.5	1.0	0.8	0.7	0.6
	25°	18.9	11.4	6.0	1.8	0.0	2.5	1.0	0.8	0.7	0.6
	26°	19.8	12.0	6.3	1.9	0.0	2.6	1.0	0.8	0.7	0.6
	27°	20.9	12.6	6.6	1.9	0.0	2.6	1.0	0.8	0.6	0.6
	28°	21.9	13.2	6.9	2.0	0.0	2.7	1.0	0.8	0.6	0.6
	29°	22.8	13.8	7.2	2.1	0.0	2.7	1.1	0.8	0.6	0.6
	30°	23.8	14.4	7.6	2.2	0.0	2.8	1.1	0.8	0.6	0.5
	31°	24.9	15.0	7.9	2.3	0.0	2.8	1.1	0.8	0.6	0.5
	32°	25.8	15.6	8.2	2.4	0.0	2.8	1.1	0.8	0.6	0.5
	33°	26.8	16.3	8.5	2.5	0.0	2.9	1.1	0.8	0.6	0.5
	34°	27.9	16.9	8.9	2.6	0.0	2.9	1.1	0.8	0.6	0.5
	35°	28.8	17.4	9.2	2.7	0.0	2.9	1.1	0.8	0.6	0.5
	36°	29.8	18.0	9.5	2.8	0.0	3.0	1.1	0.8	0.5	0.5
	37°	30.9	18.7	9.8	2.9	0.0	3.0	1.1	0.8	0.5	0.5
	38°	31.8	19.3	10.2	3.0	0.0	3.0	1.1	0.8	0.5	0.5
	39°	32.8	19.8	10.5	3.1	0.0	3.1	1.1	0.7	0.5	0.5
	40°	33.7	20.4	10.8	3.2	0.1	3.1	1.1	0.8	0.5	0.5
	41°	34.7	21.0	11.1	3.3	0.1	3.2	1.1	0.8	0.5	0.5
	42°	35.8	21.6	11.4	3.4	0.0	3.2	1.1	0.8	0.5	0.5
	43°	36.7	22.2	11.8	3.5	0.0	3.2	1.1	0.8	0.5	0.5
	44°	37.6	22.8	12.1	3.6	0.0	3.2	1.2	0.8	0.5	0.5



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CANDELA DISTRIBUTION (continued):

	225°	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°
0.0	45°	38.6	23.4	12.4	3.7	0.1	3.3	1.2	0.7	0.5	0.5
0.0	46°	39.5	23.9	12.7	3.7	0.1	3.4	1.2	0.7	0.4	0.5
0.0	47°	40.5	24.5	13.0	3.8	0.0	3.4	1.2	0.7	0.4	0.5
0.0	48°	41.4	25.0	13.3	3.9	0.0	3.4	1.2	0.6	0.3	0.5
0.0	49°	42.3	25.6	13.6	4.0	0.1	3.5	1.2	0.6	0.3	0.5
0.0	50°	43.2	26.2	13.9	4.1	0.0	3.5	1.3	0.6	0.3	0.5
0.1	51°	44.1	26.7	14.2	4.2	0.0	3.6	1.3	0.7	0.3	0.5
0.1	52°	45.0	27.3	14.5	4.3	0.0	3.6	1.3	0.7	0.3	0.5
0.1	53°	45.9	27.8	14.8	4.4	0.1	3.7	1.3	0.6	0.3	0.5
0.2	54°	46.8	28.3	15.1	4.4	0.1	3.7	1.3	0.7	0.3	0.5
0.3	55°	47.6	28.8	15.4	4.5	0.0	3.8	1.3	0.7	0.3	0.5
0.4	56°	48.5	29.4	15.6	4.6	0.1	3.8	1.3	0.7	0.3	0.5
0.5	57°	49.3	29.9	15.9	4.7	0.1	3.8	1.4	0.7	0.3	0.5
0.5	58°	50.1	30.4	16.2	4.8	0.1	3.9	1.4	0.7	0.3	0.5
0.5	59°	50.9	30.8	16.4	4.9	0.1	4.0	1.4	0.7	0.3	0.5
0.5	60°	51.8	31.4	16.7	4.9	0.1	4.0	1.4	0.7	0.3	0.5
0.5	61°	52.6	31.8	17.0	5.0	0.0	4.1	1.4	0.7	0.3	0.5
0.6	62°	53.3	32.3	17.2	5.1	0.0	4.1	1.4	0.7	0.3	0.5
0.6	63°	54.2	32.8	17.5	5.2	0.1	4.2	1.5	0.7	0.3	0.5
0.6	64°	54.9	33.2	17.7	5.2	0.1	4.2	1.5	0.7	0.3	0.6
0.6	65°	55.7	33.7	17.9	5.3	0.1	4.3	1.5	0.7	0.3	0.6
0.6	66°	56.4	34.1	18.2	5.4	0.1	4.3	1.5	0.7	0.3	0.6
0.6	67°	57.1	34.5	18.4	5.5	0.1	4.4	1.5	0.8	0.3	0.6
0.6	68°	57.8	34.9	18.6	5.5	0.1	4.4	1.5	0.8	0.3	0.6
0.6	69°	58.4	35.4	18.8	5.6	0.1	4.4	1.5	0.8	0.3	0.6
0.6	70°	59.1	35.8	19.0	5.6	0.1	4.5	1.6	0.8	0.3	0.6
0.6	71°	59.8	36.1	19.2	5.7	0.1	4.6	1.6	0.8	0.3	0.6
0.6	72°	60.4	36.5	19.5	5.8	0.1	4.6	1.6	0.8	0.3	0.6
0.6	73°	61.0	36.9	19.6	5.8	0.1	4.7	1.6	0.8	0.3	0.6
0.6	74°	61.6	37.2	19.8	5.9	0.1	4.7	1.6	0.8	0.3	0.6
0.6	75°	62.2	37.6	20.0	5.9	0.1	4.8	1.6	0.8	0.3	0.6
0.6	76°	62.7	37.9	20.2	6.0	0.1	4.8	1.7	0.8	0.3	0.6
0.6	77°	63.2	38.2	20.4	6.0	0.1	4.9	1.7	0.8	0.3	0.6
0.6	78°	63.7	38.5	20.5	6.1	0.1	4.9	1.7	0.8	0.3	0.6
0.6	79°	64.3	38.8	20.7	6.1	0.1	4.9	1.7	0.8	0.3	0.6
0.6	80°	64.7	39.1	20.8	6.2	0.1	5.0	1.7	0.8	0.3	0.6
0.6	81°	65.1	39.4	21.0	6.2	0.1	5.0	1.7	0.8	0.3	0.6
0.6	82°	65.6	39.6	21.1	6.2	0.1	5.1	1.7	0.8	0.3	0.6
0.6	83°	66.0	39.9	21.2	6.3	0.1	5.1	1.8	0.9	0.3	0.6
0.6	84°	66.4	40.1	21.3	6.3	0.1	5.2	1.8	0.9	0.3	0.6
0.6	85°	66.7	40.3	21.4	6.4	0.1	5.2	1.8	0.9	0.3	0.6
0.6	86°	67.0	40.5	21.5	6.4	0.1	5.2	1.8	0.9	0.3	0.6
0.6	87°	67.3	40.7	21.6	6.4	0.1	5.2	1.8	0.9	0.3	0.6
0.6	88°	67.6	40.8	21.7	6.4	0.1	5.2	1.8	0.9	0.3	0.6
0.6	89°	67.8	40.9	21.8	6.5	0.1	5.3	1.8	0.9	0.3	0.6



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CANDELA DISTRIBUTION (continued):

225°	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	
0.7	90°	68.0	41.1	21.9	6.5	0.1	5.3	1.8	0.9	0.3	0.6
0.7	91°	68.3	41.2	21.9	6.5	0.1	5.3	1.8	0.9	0.3	0.6
0.7	92°	68.4	41.3	22.0	6.5	0.1	5.3	1.8	0.9	0.3	0.6
0.7	93°	68.6	41.4	22.0	6.5	0.1	5.3	1.8	0.9	0.3	0.6
0.7	94°	68.7	41.5	22.0	6.5	0.1	5.3	1.8	0.9	0.3	0.6
0.7	95°	68.8	41.6	22.1	6.5	0.1	5.3	1.8	0.9	0.3	0.6
0.7	96°	68.9	41.6	22.1	6.5	0.1	5.3	1.8	0.9	0.3	0.6
0.7	97°	68.9	41.6	22.1	6.5	0.1	5.3	1.8	0.9	0.3	0.6
0.7	98°	69.0	41.6	22.1	6.5	0.1	5.3	1.8	0.9	0.3	0.6
0.7	99°	69.0	41.6	22.1	6.5	0.1	5.2	1.8	0.9	0.3	0.6
0.7	100°	68.9	41.6	22.1	6.5	0.1	5.2	1.8	0.9	0.3	0.6
0.7	101°	68.9	41.6	22.1	6.5	0.1	5.2	1.8	0.9	0.3	0.6
0.7	102°	68.8	41.5	22.1	6.5	0.1	5.2	1.8	0.8	0.3	0.6
0.7	103°	68.7	41.5	22.0	6.5	0.1	5.1	1.8	0.8	0.3	0.6
0.8	104°	68.6	41.4	22.0	6.5	0.1	5.1	1.7	0.8	0.3	0.5
0.8	105°	68.4	41.3	21.9	6.4	0.1	5.0	1.7	0.8	0.3	0.5
0.8	106°	68.2	41.2	21.9	6.4	0.1	5.0	1.7	0.8	0.3	0.5
0.8	107°	67.9	41.0	21.8	6.4	0.1	5.0	1.7	0.8	0.3	0.4
0.8	108°	67.7	40.8	21.7	6.4	0.1	4.9	1.7	0.8	0.2	0.4
0.8	109°	67.4	40.7	21.6	6.3	0.1	4.9	1.7	0.8	0.2	0.4
0.8	110°	67.1	40.5	21.5	6.3	0.1	4.8	1.6	0.8	0.2	0.4
0.8	111°	66.7	40.3	21.4	6.3	0.1	4.8	1.6	0.8	0.2	0.4
0.8	112°	66.3	40.1	21.3	6.2	0.1	4.7	1.6	0.8	0.2	0.4
0.8	113°	66.0	39.8	21.1	6.2	0.1	4.6	1.6	0.8	0.2	0.3
0.8	114°	65.5	39.6	21.0	6.1	0.1	4.6	1.5	0.8	0.2	0.3
0.8	115°	65.1	39.3	20.8	6.1	0.1	4.5	1.5	0.8	0.2	0.3
0.8	116°	64.5	39.0	20.7	6.0	0.1	4.5	1.5	0.7	0.2	0.3
0.8	117°	64.0	38.7	20.5	6.0	0.1	4.5	1.5	0.7	0.2	0.2
0.8	118°	63.5	38.4	20.3	5.9	0.1	4.4	1.5	0.7	0.2	0.2
0.8	119°	62.9	38.0	20.1	5.8	0.1	4.4	1.5	0.7	0.1	0.2
0.8	120°	62.3	37.6	19.9	5.8	0.1	4.4	1.4	0.7	0.1	0.2
0.9	121°	61.7	37.2	19.7	5.7	0.2	4.3	1.4	0.7	0.1	0.2
0.9	122°	61.0	36.9	19.5	5.6	0.2	4.3	1.4	0.7	0.1	0.1
0.9	123°	60.4	36.5	19.3	5.6	0.2	4.2	1.4	0.7	0.1	0.1
0.9	124°	59.7	36.0	19.1	5.5	0.2	4.2	1.4	0.7	0.1	0.1
0.9	125°	58.9	35.5	18.8	5.4	0.2	4.1	1.3	0.7	0.1	0.1
0.9	126°	58.1	35.1	18.6	5.3	0.2	4.1	1.3	0.6	0.1	0.1
0.9	127°	57.4	34.6	18.3	5.2	0.2	4.0	1.3	0.6	0.1	0.1
0.9	128°	56.6	34.2	18.0	5.2	0.2	3.9	1.3	0.6	0.1	0.1
0.9	129°	55.7	33.6	17.8	5.1	0.2	3.9	1.3	0.6	0.1	0.1
0.9	130°	54.8	33.1	17.5	5.0	0.2	3.8	1.3	0.6	0.1	0.1
0.9	131°	53.9	32.5	17.2	4.9	0.2	3.8	1.2	0.6	0.1	0.2
0.9	132°	53.0	32.0	16.8	4.8	0.2	3.7	1.2	0.6	0.1	0.2
0.9	133°	52.1	31.4	16.5	4.7	0.2	3.7	1.2	0.6	0.1	0.3
0.9	134°	51.0	30.8	16.2	4.6	0.2	3.6	1.2	0.6	0.1	0.3



TEST NUMBER: P1431937

CATALOG NUMBER: HSLUNVMW-4000K

CANDELA DISTRIBUTION (continued):

225°	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	
0.9	135°	50.1	30.2	15.9	4.5	0.2	3.6	1.2	0.6	0.1	0.3
0.9	136°	49.1	29.6	15.5	4.4	0.2	3.5	1.1	0.6	0.1	0.3
0.9	137°	48.1	29.0	15.2	4.3	0.2	3.5	1.1	0.5	0.1	0.3
0.9	138°	47.0	28.4	14.9	4.2	0.2	3.4	1.1	0.5	0.1	0.3
0.9	139°	46.0	27.7	14.5	4.0	0.2	3.4	1.1	0.5	0.1	0.3
0.9	140°	44.8	27.0	14.1	3.9	0.2	3.3	1.1	0.5	0.1	0.3
0.9	141°	43.7	26.4	13.7	3.8	0.2	3.3	1.0	0.5	0.1	0.3
0.9	142°	42.6	25.7	13.4	3.7	0.2	3.2	1.0	0.5	0.1	0.2
0.9	143°	41.3	24.9	13.0	3.6	0.2	3.2	1.0	0.5	0.1	0.2
0.9	144°	40.2	24.2	12.6	3.5	0.2	3.2	1.0	0.5	0.1	0.2
0.9	145°	39.0	23.5	12.2	3.3	0.2	3.1	1.0	0.5	0.1	0.2
0.9	146°	37.8	22.7	11.8	3.2	0.2	3.1	0.9	0.5	0.1	0.2
0.9	147°	36.6	22.0	11.4	3.1	0.2	3.0	0.9	0.5	0.1	0.2
0.9	148°	35.4	21.3	11.0	3.0	0.2	3.0	0.9	0.4	0.1	0.2
0.9	149°	34.0	20.4	10.6	2.9	0.2	3.0	0.9	0.4	0.1	0.2
0.8	150°	32.7	19.7	10.2	2.7	0.2	3.0	0.9	0.4	0.1	0.2
0.8	151°	31.5	18.9	9.7	2.6	0.2	3.0	0.9	0.4	0.1	0.2
0.8	152°	30.2	18.1	9.3	2.5	0.2	2.9	0.8	0.4	0.1	0.2
0.8	153°	28.8	17.3	8.9	2.4	0.2	2.9	0.8	0.4	0.1	0.2
0.8	154°	27.5	16.5	8.5	2.2	0.2	2.9	0.8	0.4	0.1	0.2
0.8	155°	26.2	15.7	8.0	2.1	0.2	2.8	0.8	0.4	0.1	0.2
0.8	156°	24.9	14.9	7.6	2.0	0.2	2.8	0.8	0.4	0.1	0.2
0.8	157°	23.6	14.1	7.1	1.9	0.2	2.7	0.8	0.4	0.1	0.2
0.8	158°	22.2	13.3	6.7	1.8	0.2	2.7	0.8	0.3	0.1	0.2
0.8	159°	20.8	12.5	6.3	1.6	0.2	2.6	0.8	0.3	0.1	0.2
0.8	160°	19.5	11.6	5.9	1.5	0.2	2.5	0.8	0.3	0.1	0.2
0.8	161°	18.2	10.9	5.4	1.4	0.1	2.5	0.8	0.3	0.1	0.2
0.7	162°	16.9	10.1	5.0	1.3	0.1	2.4	0.8	0.3	0.1	0.2
0.7	163°	15.6	9.3	4.6	1.2	0.1	2.3	0.8	0.3	0.1	0.2
0.7	164°	14.3	8.5	4.2	1.1	0.1	2.2	0.8	0.3	0.1	0.2
0.7	165°	13.0	7.7	3.9	0.9	0.1	2.1	0.7	0.3	0.0	0.2
0.7	166°	11.7	7.0	3.5	0.8	0.1	1.9	0.7	0.3	0.1	0.2
0.7	167°	10.6	6.3	3.1	0.8	0.1	1.7	0.7	0.3	0.0	0.2
0.7	168°	9.3	5.6	2.7	0.7	0.1	1.3	0.7	0.1	0.0	0.1
0.6	169°	8.2	4.9	2.4	0.6	0.1	0.8	0.4	0.0	0.0	0.0
0.5	170°	7.1	4.2	2.0	0.4	0.1	0.6	0.1	0.0	0.0	0.0
0.4	171°	6.0	3.5	1.7	0.3	0.1	0.4	0.0	0.0	0.0	0.0
0.3	172°	5.0	2.9	1.4	0.1	0.1	0.2	0.0	0.0	0.0	0.0
0.3	173°	4.0	2.4	1.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
0.3	174°	3.1	1.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.3	175°	2.3	1.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.3	176°	1.6	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.2	177°	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.2	178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.3	179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1431937

CATALOG NUMBER: HSLUNVMW-4000K

CANDELA DISTRIBUTION (continued):

225°		247.5°	270°	292.5°	315°	337.5°	360°
0.0	0°	0.0	0.0	0.0	0.0	0.0	0.0
	1°	0.0	0.0	0.1	0.1	0.1	0.2
	2°	0.0	0.0	0.3	0.3	0.4	0.4
	3°	0.0	0.0	0.5	0.5	0.8	0.8
	4°	0.0	0.0	0.7	0.8	1.3	1.4
	5°	0.0	0.0	0.9	1.2	1.8	2.0
	6°	0.0	0.0	1.2	1.6	2.3	2.6
	7°	0.0	0.0	1.5	2.0	3.0	3.2
	8°	0.1	0.0	2.0	2.5	3.6	4.0
	9°	0.1	0.0	2.4	2.9	4.2	4.7
	10°	0.1	0.0	2.8	3.3	4.8	5.4
	11°	0.1	0.0	3.2	3.8	5.6	6.2
	12°	0.1	0.0	3.6	4.3	6.2	6.9
	13°	0.1	0.0	4.1	4.8	6.9	7.8
	14°	0.1	0.0	4.5	5.3	7.8	8.6
	15°	0.2	0.0	5.0	5.8	8.5	9.5
	16°	0.2	0.0	5.5	6.4	9.3	10.4
	17°	0.3	0.0	5.9	6.9	10.0	11.3
	18°	0.3	0.0	6.4	7.4	10.9	12.1
	19°	0.3	0.0	6.9	8.0	11.7	13.1
	20°	0.4	0.0	7.4	8.6	12.5	14.1
	21°	0.4	0.0	7.9	9.2	13.4	15.0
	22°	0.4	0.0	8.4	9.8	14.3	15.9
	23°	0.4	0.1	8.9	10.4	15.1	16.9
	24°	0.4	0.0	9.4	11.0	16.0	17.9
	25°	0.5	0.0	9.9	11.6	16.9	18.9
	26°	0.5	0.0	10.5	12.2	17.8	19.8
	27°	0.5	0.1	10.9	12.9	18.6	20.9
	28°	0.5	0.1	11.5	13.5	19.5	21.9
	29°	0.5	0.1	12.0	14.1	20.5	22.8
	30°	0.5	0.1	12.5	14.7	21.4	23.8
	31°	0.5	0.1	13.1	15.4	22.2	24.9
	32°	0.5	0.1	13.6	16.0	23.1	25.8
	33°	0.5	0.1	14.2	16.6	24.1	26.8
	34°	0.5	0.1	14.7	17.3	24.9	27.9
	35°	0.5	0.1	15.2	17.9	25.8	28.8
	36°	0.5	0.1	15.8	18.5	26.8	29.8
	37°	0.5	0.1	16.3	19.1	27.6	30.9
	38°	0.6	0.1	16.8	19.8	28.5	31.8
	39°	0.6	0.1	17.4	20.4	29.5	32.8
	40°	0.6	0.1	17.9	21.0	30.3	33.7
	41°	0.6	0.1	18.4	21.6	31.2	34.7
	42°	0.6	0.1	19.0	22.3	32.0	35.8
	43°	0.6	0.1	19.5	22.9	32.9	36.7
	44°	0.6	0.1	20.1	23.5	33.8	37.6



TEST NUMBER: P1431937
 CATALOG NUMBER: HSLUNVMW-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	0.6	0.1	20.6	24.1	34.6	38.6
46°	0.6	0.1	21.1	24.7	35.5	39.5
47°	0.6	0.1	21.6	25.3	36.3	40.5
48°	0.6	0.2	22.1	25.9	37.2	41.4
49°	0.6	0.2	22.6	26.6	38.0	42.3
50°	0.6	0.2	23.1	27.1	38.8	43.2
51°	0.6	0.2	23.6	27.7	39.6	44.1
52°	0.6	0.2	24.1	28.3	40.4	45.0
53°	0.6	0.2	24.6	28.9	41.2	45.9
54°	0.6	0.2	25.1	29.4	42.0	46.8
55°	0.6	0.2	25.6	29.9	42.8	47.6
56°	0.7	0.3	26.1	30.5	43.5	48.5
57°	0.7	0.3	26.6	31.0	44.3	49.3
58°	0.7	0.3	27.0	31.6	45.1	50.1
59°	0.7	0.3	27.5	32.1	45.8	50.9
60°	0.7	0.3	27.9	32.6	46.5	51.8
61°	0.7	0.3	28.4	33.1	47.2	52.6
62°	0.7	0.3	28.7	33.6	48.0	53.3
63°	0.7	0.3	29.2	34.1	48.6	54.2
64°	0.7	0.3	29.6	34.6	49.3	54.9
65°	0.7	0.3	30.1	35.0	50.0	55.7
66°	0.7	0.3	30.4	35.5	50.6	56.4
67°	0.7	0.4	30.8	36.0	51.3	57.1
68°	0.7	0.4	31.2	36.4	51.9	57.8
69°	0.7	0.4	31.6	36.8	52.5	58.4
70°	0.7	0.4	31.9	37.2	53.1	59.1
71°	0.7	0.4	32.3	37.6	53.7	59.8
72°	0.7	0.5	32.6	38.0	54.2	60.4
73°	0.7	0.5	32.9	38.4	54.7	61.0
74°	0.7	0.5	33.3	38.8	55.3	61.6
75°	0.7	0.5	33.6	39.1	55.8	62.2
76°	0.7	0.5	33.9	39.5	56.3	62.7
77°	0.8	0.6	34.1	39.8	56.8	63.2
78°	0.8	0.6	34.4	40.1	57.2	63.7
79°	0.8	0.6	34.7	40.4	57.6	64.3
80°	0.8	0.6	35.0	40.7	58.1	64.7
81°	0.8	0.6	35.2	41.0	58.5	65.1
82°	0.8	0.6	35.4	41.3	58.9	65.6
83°	0.8	0.6	35.7	41.5	59.2	66.0
84°	0.8	0.6	35.8	41.8	59.5	66.4
85°	0.8	0.6	36.0	41.9	59.9	66.7
86°	0.8	0.6	36.2	42.2	60.1	67.0
87°	0.8	0.6	36.4	42.3	60.4	67.3
88°	0.8	0.6	36.5	42.5	60.6	67.6
89°	0.8	0.6	36.6	42.6	60.9	67.8



TEST NUMBER: P1431937
 CATALOG NUMBER: HSLUNVMW-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.8	0.7	36.7	42.8	61.1	68.0
91°	0.8	0.7	36.8	42.9	61.2	68.3
92°	0.8	0.7	36.9	43.0	61.4	68.4
93°	0.8	0.7	36.9	43.1	61.5	68.6
94°	0.8	0.7	37.0	43.2	61.6	68.7
95°	0.8	0.7	37.0	43.2	61.7	68.8
96°	0.8	0.7	37.1	43.3	61.8	68.9
97°	0.8	0.8	37.1	43.3	61.8	68.9
98°	0.8	0.8	37.1	43.4	61.9	69.0
99°	0.8	0.8	37.1	43.4	61.9	69.0
100°	0.8	0.9	37.1	43.3	61.9	68.9
101°	0.8	0.9	37.0	43.3	61.8	68.9
102°	0.8	0.9	37.0	43.3	61.7	68.8
103°	0.8	0.9	36.9	43.2	61.6	68.7
104°	0.7	1.0	36.8	43.1	61.5	68.6
105°	0.7	1.0	36.7	43.0	61.4	68.4
106°	0.7	1.0	36.5	42.9	61.2	68.2
107°	0.7	1.1	36.4	42.7	61.0	67.9
108°	0.7	1.1	36.2	42.5	60.8	67.7
109°	0.7	1.1	36.0	42.4	60.5	67.4
110°	0.7	1.1	35.8	42.2	60.2	67.1
111°	0.7	1.1	35.6	41.9	59.9	66.7
112°	0.7	1.1	35.4	41.7	59.6	66.3
113°	0.7	1.1	35.1	41.4	59.3	66.0
114°	0.7	1.1	34.9	41.2	58.9	65.5
115°	0.7	1.1	34.5	40.9	58.4	65.1
116°	0.7	1.1	34.2	40.6	58.0	64.5
117°	0.7	1.1	33.9	40.2	57.6	64.0
118°	0.7	1.1	33.6	39.9	57.1	63.5
119°	0.7	1.1	33.2	39.5	56.5	62.9
120°	0.7	1.0	32.9	39.1	56.0	62.3
121°	0.6	1.0	32.5	38.7	55.5	61.7
122°	0.6	1.0	32.1	38.3	54.9	61.0
123°	0.6	1.0	31.7	37.9	54.2	60.4
124°	0.6	0.9	31.3	37.4	53.6	59.7
125°	0.6	0.9	30.8	36.9	52.9	58.9
126°	0.6	0.9	30.4	36.4	52.2	58.1
127°	0.6	0.9	29.9	35.9	51.5	57.4
128°	0.6	0.9	29.4	35.4	50.8	56.6
129°	0.6	0.9	28.9	34.8	50.0	55.7
130°	0.6	0.9	28.4	34.2	49.3	54.8
131°	0.6	0.9	27.8	33.7	48.4	53.9
132°	0.6	0.8	27.3	33.1	47.7	53.0
133°	0.6	0.8	26.8	32.5	46.8	52.1
134°	0.6	0.8	26.1	31.8	45.9	51.0



TEST NUMBER: P1431937
 CATALOG NUMBER: HSLUNVMW-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
135°	0.5	0.8	25.6	31.2	45.1	50.1
136°	0.5	0.7	25.0	30.5	44.2	49.1
137°	0.5	0.7	24.3	29.9	43.1	48.1
138°	0.5	0.7	23.7	29.2	42.2	47.0
139°	0.5	0.7	23.1	28.5	41.2	46.0
140°	0.5	0.6	22.5	27.7	40.2	44.8
141°	0.5	0.6	21.9	27.0	39.3	43.7
142°	0.5	0.6	21.2	26.3	38.1	42.6
143°	0.5	0.6	20.5	25.5	37.1	41.3
144°	0.5	0.6	19.9	24.7	36.1	40.2
145°	0.5	0.5	19.2	23.9	35.0	39.0
146°	0.5	0.5	18.5	23.2	33.9	37.8
147°	0.5	0.5	17.8	22.4	32.7	36.6
148°	0.5	0.5	17.1	21.6	31.6	35.4
149°	0.5	0.5	16.4	20.7	30.5	34.0
150°	0.5	0.4	15.7	19.9	29.3	32.7
151°	0.5	0.4	15.1	19.1	28.2	31.5
152°	0.4	0.4	14.4	18.3	26.9	30.2
153°	0.4	0.4	13.6	17.4	25.8	28.8
154°	0.4	0.4	12.9	16.6	24.6	27.5
155°	0.4	0.4	12.2	15.8	23.4	26.2
156°	0.4	0.3	11.6	14.9	22.2	24.9
157°	0.4	0.3	10.9	14.1	21.0	23.6
158°	0.4	0.3	10.2	13.3	19.8	22.2
159°	0.4	0.3	9.5	12.4	18.6	20.8
160°	0.4	0.3	8.9	11.6	17.4	19.5
161°	0.4	0.3	8.2	10.8	16.2	18.2
162°	0.4	0.3	7.5	9.9	15.0	16.9
163°	0.4	0.2	6.9	9.2	13.9	15.6
164°	0.3	0.2	6.3	8.4	12.8	14.3
165°	0.3	0.2	5.6	7.7	11.6	13.0
166°	0.3	0.2	5.1	6.9	10.5	11.7
167°	0.3	0.2	4.5	6.2	9.4	10.6
168°	0.3	0.2	4.0	5.2	8.3	9.3
169°	0.2	0.1	3.5	4.2	7.3	8.2
170°	0.2	0.1	2.8	3.2	6.3	7.1
171°	0.1	0.1	1.9	2.3	5.0	6.0
172°	0.0	0.1	1.0	1.5	4.2	5.0
173°	0.0	0.1	0.3	1.2	3.4	4.0
174°	0.0	0.1	0.0	0.7	2.7	3.1
175°	0.0	0.0	0.0	0.5	2.1	2.3
176°	0.0	0.0	0.0	0.1	1.3	1.6
177°	0.0	0.0	0.0	0.0	0.3	0.6
178°	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



TEST NUMBER: P1431937

CATALOG NUMBER: HSLUNVMW-4000K

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

(END OF REPORT)