

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: METALUX

Report Number: P1432434

Luminaire Tested: EHBR1-42-UNV-TASM-L830

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1432434
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-654-4)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-42-UNV-TASM-L830
Description: Elevate Round Highbay at, 42000 lumens, 3000K 80CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

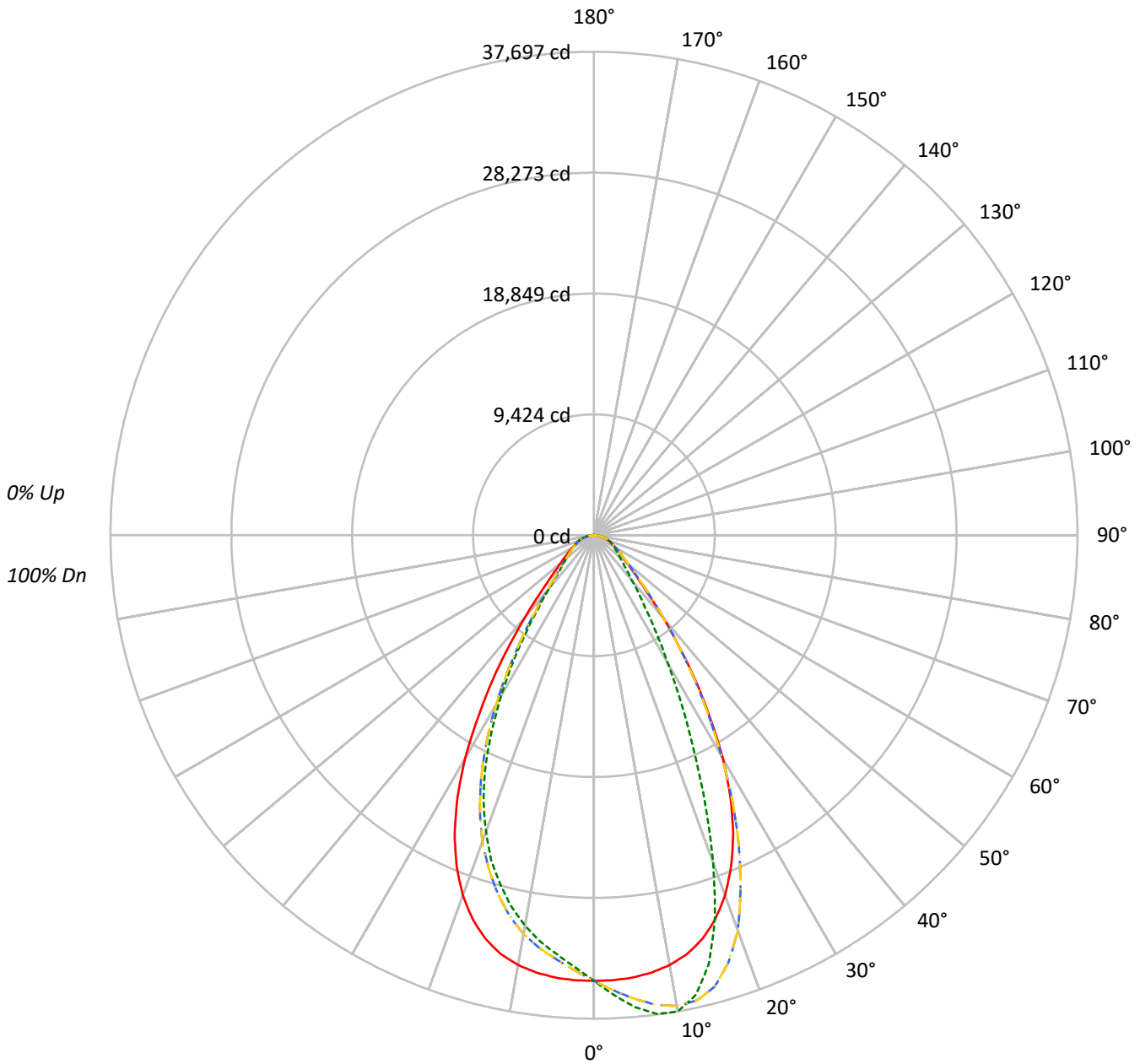
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38845.4 lumens
Efficiency: N/A
Efficacy: 173.1 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 0.84 / 0.9
Luminous Opening: Circular (Dia: 1.71' x H: 0')
CIE Type: Direct

Input Watts (W): 224.4
Input Voltage (V): NR
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: 24 FT

TEST NUMBER: P1432434
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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - · - · 90°-270° - · - · 135°-315°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74
4	93	84	77	72	91	83	77	72	80	75	71	78	74	70	76	72	69	67
5	87	78	71	66	86	77	70	65	75	69	65	73	68	64	71	67	64	62
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57
7	78	67	60	56	76	67	60	56	65	59	55	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	52	61	55	51	60	55	51	59	54	51	49
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46
10	66	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	163146	163146	163146	163146
5°	163210	174115	163210	154740
10°	162263	179759	162263	147412
15°	158534	168178	158534	137086
20°	149310	135802	149310	122962
25°	133133	94790	133133	103813
30°	108963	62161	108963	78294
35°	78838	40611	78838	52580
40°	51473	28266	51473	33486
45°	33028	22142	33028	24128
50°	24853	19066	24853	20366
55°	20619	17649	20619	18267
60°	18221	17157	18221	17260
65°	17062	16997	17062	16925
70°	16798	17299	16798	17075
75°	16666	17754	16666	17223
80°	16297	18657	16297	17441
85°	13724	17345	13724	16536

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 46435 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3303.3	8.5
10°-20°	8986.8	23.1
20°-30°	10539.7	27.1
30°-40°	7329.7	18.9
40°-50°	3642.5	9.4
50°-60°	2178.6	5.6
60°-70°	1533.4	3.9
70°-80°	987.8	2.5
80°-90°	313.7	0.8
90°-100°	1.8	0.0
100°-110°	2.2	0.0
110°-120°	2.3	0.0
120°-130°	2.8	0.0
130°-140°	3.8	0.0
140°-150°	4.6	0.0
150°-160°	5.1	0.0
160°-170°	5.0	0.0
170°-180°	2.1	0.0
0°-30°	22829.9	58.8
0°-40°	30159.6	77.6
0°-60°	35980.7	92.6
0°-90°	38815.7	99.9
90°-120°	6.3	0.0
90°-150°	17.5	0.0
90°-180°	30.0	0.1
0°-180°	38845.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	34741	34741	34741	34741	34741	
5°	34622	36935	34622	32825	34622	3286
15°	32608	34592	32608	28197	32608	9113
25°	25694	18294	25694	20035	25694	11632
35°	13752	7084	13752	9172	13752	8585
45°	4973	3334	4973	3633	4973	4069
55°	2518	2156	2518	2231	2518	2303
65°	1536	1530	1536	1523	1536	1542
75°	918	978	918	949	918	964
85°	255	322	255	307	255	283
90°	1	5	1	1	1	13
95°	1	5	1	1	1	1
105°	1	6	1	1	1	1
115°	2	6	2	1	2	2
125°	3	7	3	2	3	3
135°	5	7	5	3	5	4
145°	8	8	8	7	8	5
155°	10	12	10	12	10	5
165°	18	22	18	18	18	5
175°	23	28	23	22	23	2
180°	24	24	24	24	24	



TEST NUMBER: P1432434
 CATALOG NUMBER: EHBR1-42-UNV-TASM-L830

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7
2.5°	34720.4	35169.3	35532.7	35772.5	35891.0	35772.5	35532.7	35169.3	34720.4	34274.2	33967.4
5°	34622.1	35521.0	36282.6	36780.9	36935.4	36780.9	36282.6	35521.0	34622.1	33772.6	33209.1
7.5°	34386.9	35787.5	36919.1	37500.8	37642.8	37500.8	36919.1	35787.5	34386.9	33184.3	32472.3
10°	34027.9	35955.6	37263.0	37680.0	37696.8	37680.0	37263.0	35955.6	34027.9	32407.8	31568.1
12.5°	33455.3	35895.6	37147.7	37010.9	36700.2	37010.9	37147.7	35895.6	33455.3	31459.4	30400.0
15°	32608.4	35540.6	36417.5	35304.1	34592.1	35304.1	36417.5	35540.6	32608.4	30178.6	28950.0
17.5°	31415.1	34876.1	34893.1	32690.6	31347.2	32690.6	34893.1	34876.1	31415.1	28612.5	27259.5
20°	29877.0	33810.4	32794.1	28765.6	27174.1	28765.6	32794.1	33810.4	29877.0	26761.1	25433.5
22.5°	27948.7	32373.3	29871.1	24817.3	22646.0	24817.3	29871.1	32373.3	27948.7	24608.1	23226.4
25°	25693.5	30612.5	26726.6	20515.1	18293.7	20515.1	26726.6	30612.5	25693.5	22042.7	20793.3
27.5°	23040.8	28380.6	23378.2	16764.2	14714.8	16764.2	23378.2	28380.6	23040.8	19394.0	18117.8
30°	20094.3	25519.5	19893.6	13350.6	11463.4	13350.6	19893.6	25519.5	20094.3	16418.3	15275.6
32.5°	16795.4	22715.1	16547.2	10697.3	9098.6	10697.3	16547.2	22715.1	16795.4	13578.6	12384.5
35°	13751.9	19206.4	13529.7	8405.6	7083.8	8405.6	13529.7	19206.4	13751.9	10898.0	9725.4
37.5°	10792.4	15891.3	10785.3	6768.5	5745.7	6768.5	10785.3	15891.3	10792.4	8472.6	7520.8
40°	8396.4	12425.5	8450.5	5403.0	4610.9	5403.0	8450.5	12425.5	8396.4	6446.6	5837.6
42.5°	6361.9	9501.2	6642.1	4434.4	3916.5	4434.4	6642.1	9501.2	6361.9	5079.3	4623.3
45°	4973.1	6991.9	5186.7	3741.2	3334.0	3741.2	5186.7	6991.9	4973.1	4090.4	3784.2
47.5°	4050.0	5403.7	4203.8	3209.0	2923.7	3209.0	4203.8	5403.7	4050.0	3459.8	3230.5
50°	3401.8	4146.4	3490.5	2801.2	2609.7	2801.2	3490.5	4146.4	3401.8	2962.7	2809.7
52.5°	2922.3	3381.6	2972.6	2496.3	2367.3	2496.3	2972.6	3381.6	2922.3	2592.1	2497.0
55°	2518.4	2842.9	2584.9	2244.8	2155.6	2244.8	2584.9	2842.9	2518.4	2306.7	2236.4
57.5°	2211.7	2411.7	2244.8	2030.5	1971.2	2030.5	2244.8	2411.7	2211.7	2052.7	2014.9
60°	1940.0	2088.5	1981.0	1843.5	1826.7	1843.5	1981.0	2088.5	1940.0	1846.8	1822.1
62.5°	1730.9	1824.7	1751.7	1675.5	1660.5	1675.5	1751.7	1824.7	1730.9	1659.2	1663.8
65°	1535.5	1622.8	1565.4	1524.4	1529.6	1524.4	1565.4	1622.8	1535.5	1502.2	1509.4
67.5°	1384.3	1429.9	1405.2	1381.7	1387.5	1381.7	1405.2	1429.9	1384.3	1351.8	1362.8
70°	1223.4	1272.2	1246.9	1250.1	1259.9	1250.1	1246.9	1272.2	1223.4	1213.6	1222.1
72.5°	1069.6	1107.5	1098.9	1106.8	1117.2	1106.8	1098.9	1107.5	1069.6	1068.3	1069.0
75°	918.5	947.2	951.1	962.2	978.5	962.2	951.1	947.2	918.5	908.8	920.5
77.5°	753.7	786.3	798.6	813.6	837.8	813.6	798.6	786.3	753.7	760.2	766.1
80°	602.6	617.6	644.9	656.0	689.9	656.0	644.9	617.6	602.6	591.5	600.0
82.5°	441.0	454.7	478.2	499.0	518.6	499.0	478.2	454.7	441.0	435.9	436.5
85°	254.7	275.6	291.2	316.0	321.9	316.0	291.2	275.6	254.7	260.6	254.7
87.5°	89.3	95.7	109.4	119.2	119.9	119.2	109.4	95.7	89.3	91.2	82.7
90°	0.7	1.3	2.0	3.9	5.2	3.9	2.0	1.3	0.7	0.7	0.7
92.5°	0.7	1.3	2.0	3.9	5.2	3.9	2.0	1.3	0.7	0.7	0.7
95°	1.3	1.3	2.0	3.9	5.2	3.9	2.0	1.3	1.3	0.7	0.7
97.5°	1.3	1.3	2.0	3.9	5.2	3.9	2.0	1.3	1.3	0.7	0.7
100°	1.3	1.3	2.0	3.9	5.2	3.9	2.0	1.3	1.3	1.3	0.7
102.5°	1.3	2.0	2.6	4.6	5.2	4.6	2.6	2.0	1.3	1.3	0.7
105°	1.3	2.0	2.6	4.6	5.9	4.6	2.6	2.0	1.3	1.3	0.7
107.5°	1.3	2.0	2.6	4.6	5.9	4.6	2.6	2.0	1.3	1.3	1.3
110°	1.3	2.0	2.6	4.6	5.9	4.6	2.6	2.0	1.3	1.3	1.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	1.3	2.0	2.6	4.6	5.9	4.6	2.6	2.0	1.3	1.3	1.3
115°	2.0	2.0	2.6	4.6	5.9	4.6	2.6	2.0	2.0	1.3	1.3
117.5°	2.0	2.0	2.6	4.6	5.9	4.6	2.6	2.0	2.0	2.0	1.3
120°	2.0	2.0	3.3	4.6	5.9	4.6	3.3	2.0	2.0	2.0	1.3
122.5°	2.6	2.6	3.3	5.2	5.9	5.2	3.3	2.6	2.6	2.6	2.0
125°	2.6	2.6	3.9	5.2	6.6	5.2	3.9	2.6	2.6	3.3	2.6
127.5°	3.3	3.3	3.9	5.2	6.6	5.2	3.9	3.3	3.3	3.3	2.6
130°	3.9	3.3	3.9	5.9	6.6	5.9	3.9	3.3	3.9	3.9	3.3
132.5°	4.6	3.9	4.6	6.6	7.2	6.6	4.6	3.9	4.6	5.2	4.6
135°	5.2	3.9	5.2	5.9	7.2	5.9	5.2	3.9	5.2	5.9	4.6
137.5°	5.9	4.6	5.2	6.6	7.2	6.6	5.2	4.6	5.9	6.6	5.9
140°	6.6	5.2	5.2	6.6	7.8	6.6	5.2	5.2	6.6	6.6	6.6
142.5°	7.2	5.9	5.9	7.2	7.8	7.2	5.9	5.9	7.2	7.2	7.2
145°	7.8	7.2	6.6	7.2	8.4	7.2	6.6	7.2	7.8	7.2	7.8
147.5°	7.8	7.2	7.2	7.8	9.1	7.8	7.2	7.2	7.8	7.8	8.4
150°	8.4	8.4	7.8	8.4	9.7	8.4	7.8	8.4	8.4	8.4	9.1
152.5°	9.1	9.1	9.1	9.7	10.4	9.7	9.1	9.1	9.1	9.1	9.7
155°	10.4	10.4	10.4	11.1	11.7	11.1	10.4	10.4	10.4	9.7	11.1
157.5°	11.7	12.4	12.4	13.0	13.7	13.0	12.4	12.4	11.7	11.7	12.4
160°	14.3	14.3	15.0	15.6	16.3	15.6	15.0	14.3	14.3	13.7	14.3
162.5°	15.6	15.6	17.0	17.6	18.9	17.6	17.0	15.6	15.6	15.6	15.6
165°	17.6	17.6	18.9	20.2	21.5	20.2	18.9	17.6	17.6	17.0	17.0
167.5°	18.9	18.9	20.2	22.1	23.4	22.1	20.2	18.9	18.9	18.3	18.3
170°	19.6	20.2	21.5	23.4	24.7	23.4	21.5	20.2	19.6	19.6	18.9
172.5°	21.5	21.5	23.4	25.4	26.7	25.4	23.4	21.5	21.5	20.9	20.9
175°	22.8	23.4	24.7	26.7	28.0	26.7	24.7	23.4	22.8	22.1	22.1
177.5°	22.8	24.1	25.4	27.4	28.7	27.4	25.4	24.1	22.8	22.1	22.1
180°	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	34740.7	34740.7	34740.7	34740.7	34740.7	34740.7
2.5°	33731.5	33709.4	33731.5	33967.4	34274.2	34720.4
5°	32947.9	32825.4	32947.9	33209.1	33772.6	34622.1
7.5°	32035.2	31964.2	32035.2	32472.3	33184.3	34386.9
10°	31074.3	30913.5	31074.3	31568.1	32407.8	34027.9
12.5°	29890.0	29677.0	29890.0	30400.0	31459.4	33455.3
15°	28383.9	28196.9	28383.9	28950.0	30178.6	32608.4
17.5°	26767.7	26598.3	26767.7	27259.5	28612.5	31415.1
20°	24737.7	24604.9	24737.7	25433.5	26761.1	29877.0
22.5°	22608.2	22483.8	22608.2	23226.4	24608.1	27948.7
25°	20102.8	20035.0	20102.8	20793.3	22042.7	25693.5
27.5°	17395.4	17280.1	17395.4	18117.8	19394.0	23040.8
30°	14629.4	14438.5	14629.4	15275.6	16418.3	20094.3
32.5°	11923.9	11786.5	11923.9	12384.5	13578.6	16795.4
35°	9309.1	9171.6	9309.1	9725.4	10898.0	13751.9
37.5°	7253.8	7010.8	7253.8	7520.8	8472.6	10792.4
40°	5501.4	5462.3	5501.4	5837.6	6446.6	8396.4
42.5°	4478.7	4372.5	4478.7	4623.3	5079.3	6361.9
45°	3674.8	3633.1	3674.8	3784.2	4090.4	4973.1
47.5°	3160.2	3178.3	3160.2	3230.5	3459.8	4050.0
50°	2776.4	2787.6	2776.4	2809.7	2962.7	3401.8
52.5°	2493.7	2484.0	2493.7	2497.0	2592.1	2922.3
55°	2243.6	2231.1	2243.6	2236.4	2306.7	2518.4
57.5°	2024.7	2033.8	2024.7	2014.9	2052.7	2211.7
60°	1829.2	1837.7	1829.2	1822.1	1846.8	1940.0
62.5°	1664.4	1669.7	1664.4	1663.8	1659.2	1730.9
65°	1517.2	1523.1	1517.2	1509.4	1502.2	1535.5
67.5°	1376.5	1376.5	1376.5	1362.8	1351.8	1384.3
70°	1244.2	1243.6	1244.2	1222.1	1213.6	1223.4
72.5°	1085.3	1100.9	1085.3	1069.0	1068.3	1069.6
75°	930.9	949.2	930.9	920.5	908.8	918.5
77.5°	774.6	802.6	774.6	766.1	760.2	753.7
80°	614.3	644.9	614.3	600.0	591.5	602.6
82.5°	454.0	476.9	454.0	436.5	435.9	441.0
85°	270.3	306.9	270.3	254.7	260.6	254.7
87.5°	86.6	110.7	86.6	82.7	91.2	89.3
90°	0.7	0.7	0.7	0.7	0.7	0.7
92.5°	0.7	0.7	0.7	0.7	0.7	0.7
95°	0.7	0.7	0.7	0.7	0.7	1.3
97.5°	0.7	1.3	0.7	0.7	0.7	1.3
100°	0.7	1.3	0.7	0.7	1.3	1.3
102.5°	0.7	1.3	0.7	0.7	1.3	1.3
105°	0.7	1.3	0.7	0.7	1.3	1.3
107.5°	0.7	1.3	0.7	1.3	1.3	1.3
110°	0.7	1.3	0.7	1.3	1.3	1.3



TEST NUMBER: P1432434
 CATALOG NUMBER: EHBR1-42-UNV-TASM-L830

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.7	1.3	0.7	1.3	1.3	1.3
115°	0.7	1.3	0.7	1.3	1.3	2.0
117.5°	0.7	1.3	0.7	1.3	2.0	2.0
120°	0.7	1.3	0.7	1.3	2.0	2.0
122.5°	1.3	1.3	1.3	2.0	2.6	2.6
125°	1.3	2.0	1.3	2.6	3.3	2.6
127.5°	1.3	2.0	1.3	2.6	3.3	3.3
130°	2.0	2.0	2.0	3.3	3.9	3.9
132.5°	2.6	2.6	2.6	4.6	5.2	4.6
135°	3.3	2.6	3.3	4.6	5.9	5.2
137.5°	3.9	3.3	3.9	5.9	6.6	5.9
140°	5.2	4.6	5.2	6.6	6.6	6.6
142.5°	5.9	5.9	5.9	7.2	7.2	7.2
145°	7.2	7.2	7.2	7.8	7.2	7.8
147.5°	8.4	8.4	8.4	8.4	7.8	7.8
150°	9.7	9.7	9.7	9.1	8.4	8.4
152.5°	10.4	11.1	10.4	9.7	9.1	9.1
155°	11.7	12.4	11.7	11.1	9.7	10.4
157.5°	13.0	14.3	13.0	12.4	11.7	11.7
160°	15.0	15.6	15.0	14.3	13.7	14.3
162.5°	16.3	17.0	16.3	15.6	15.6	15.6
165°	17.6	18.3	17.6	17.0	17.0	17.6
167.5°	18.3	18.3	18.3	18.3	18.3	18.9
170°	18.9	19.6	18.9	18.9	19.6	19.6
172.5°	20.2	20.9	20.2	20.9	20.9	21.5
175°	21.5	22.1	21.5	22.1	22.1	22.8
177.5°	22.1	22.8	22.1	22.1	22.1	22.8
180°	24.1	24.1	24.1	24.1	24.1	24.1



TEST NUMBER: P1432434
 CATALOG NUMBER: EHBR1-42-UNV-TASM-L830

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	19.35	20.56	19.72	20.87	21.19	18.67	19.88	19.04	20.19	20.51
	3H	20.99	22.06	21.37	22.40	22.76	20.62	21.69	21.00	22.03	22.39
	4H	21.70	22.70	22.10	23.05	23.44	21.48	22.48	21.89	22.83	23.22
	6H	22.27	23.19	22.68	23.56	23.96	22.23	23.15	22.65	23.52	23.92
	8H	22.47	23.34	22.90	23.73	24.14	22.52	23.39	22.95	23.78	24.19
	12H	22.59	23.42	23.03	23.81	24.24	22.71	23.55	23.15	23.93	24.36
4H	2H	19.81	20.81	20.22	21.17	21.55	19.30	20.30	19.71	20.65	21.04
	3H	21.72	22.55	22.14	22.96	23.36	21.48	22.30	21.89	22.71	23.11
	4H	22.58	23.32	23.02	23.74	24.19	22.47	23.21	22.91	23.64	24.08
	6H	23.30	23.94	23.77	24.39	24.86	23.37	24.01	23.83	24.46	24.93
	8H	23.56	24.16	24.04	24.61	25.08	23.71	24.31	24.19	24.76	25.23
	12H	23.73	24.26	24.22	24.74	25.22	23.96	24.49	24.45	24.97	25.45
8H	4H	22.89	23.49	23.36	23.93	24.41	22.81	23.41	23.29	23.86	24.33
	6H	23.77	24.25	24.27	24.75	25.23	23.87	24.35	24.37	24.85	25.33
	8H	24.12	24.55	24.64	25.07	25.56	24.32	24.75	24.84	25.27	25.76
	12H	24.38	24.75	24.89	25.25	25.83	24.67	25.05	25.19	25.55	26.12
12H	4H	22.92	23.44	23.41	23.93	24.41	22.84	23.37	23.33	23.85	24.33
	6H	23.84	24.27	24.36	24.79	25.28	23.94	24.37	24.47	24.89	25.39
	8H	24.25	24.63	24.77	25.13	25.70	24.46	24.83	24.97	25.33	25.91

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-2

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L830-N

Data in this report applies to families of products including EHBR-60-L830-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-2
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/05/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Metalux
 Catalog Number: **EHBR-60-L830-N**
 Description: Elevate Round Highbay at, 60000 lumens, 3000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K): 2983
 CIE u': 0.2516
 CIE v': 0.5201
 Duv: -0.0012
 CIE x: 0.4364
 CIE y: 0.4010
 CIE z: 0.1626
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 583
 Purity: 51.34918
 R_f: 81.2
 R_g: 101.5

CRI (Ra):	83.4		
R1:	84.0	R9:	29.4
R2:	87.5	R10:	68.6
R3:	88.9	R11:	82.2
R4:	83.8	R12:	61.6
R5:	81.9	R13:	83.9
R6:	83.1	R14:	92.5
R7:	87.1	R15:	79.8
R8:	70.9		



Test Conditions

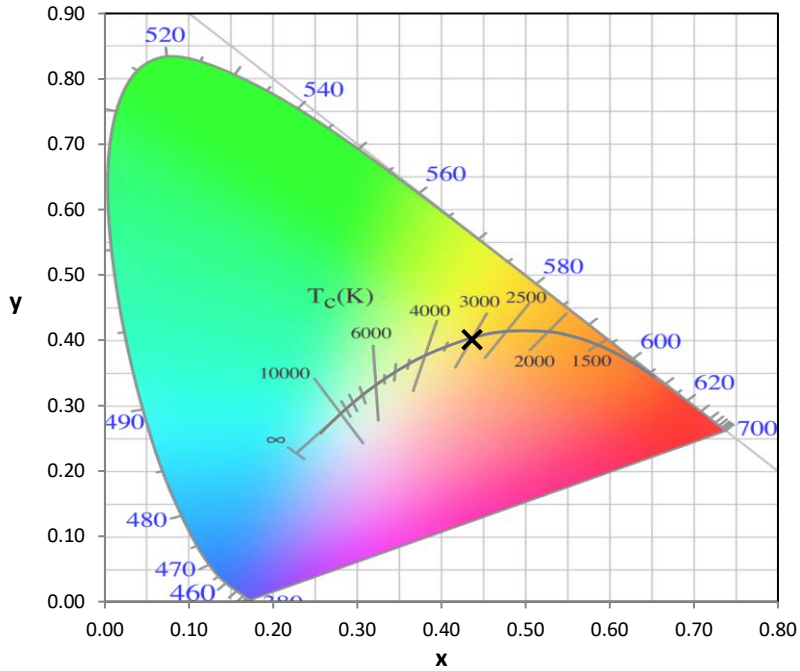
Stabilization Time: 38M
 Operation Time: 1H 38M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-2

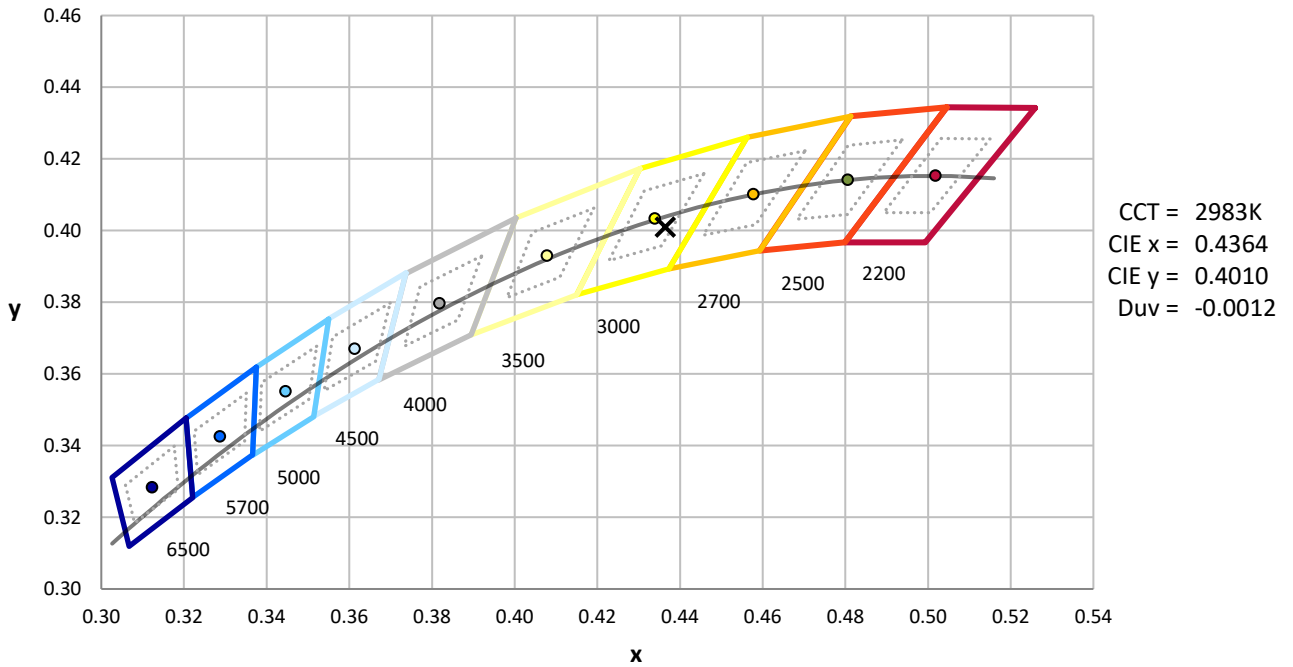
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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

REPORT NUMBER: SP1-2506-472-2

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-2

Photopic Flux vs. Wavelength



Photopic Lumens: NR

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	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	109	NR	635	637	NR	765	4	NR	895	0	NR
380	0	NR	510	135	NR	640	175	NR	770	3	NR	900	0	NR
385	0	NR	515	160	NR	645	171	NR	775	3	NR	905	0	NR
390	1	NR	520	180	NR	650	146	NR	780	2	NR	910	0	NR
395	1	NR	525	195	NR	655	119	NR	785	2	NR	915	0	NR
400	2	NR	530	207	NR	660	99	NR	790	2	NR	920	0	NR
405	3	NR	535	218	NR	665	82	NR	795	2	NR	925	0	NR
410	5	NR	540	227	NR	670	76	NR	800	1	NR	930	0	NR
415	10	NR	545	237	NR	675	61	NR	805	1	NR	935	0	NR
420	20	NR	550	247	NR	680	52	NR	810	1	NR	940	0	NR
425	35	NR	555	259	NR	685	44	NR	815	1	NR	945	0	NR
430	58	NR	560	271	NR	690	38	NR	820	1	NR	950	0	NR
435	90	NR	565	283	NR	695	33	NR	825	1	NR	955	0	NR
440	135	NR	570	293	NR	700	27	NR	830	1	NR	960	0	NR
445	204	NR	575	303	NR	705	24	NR	835	1	NR	965	0	NR
450	233	NR	580	310	NR	710	20	NR	840	0	NR	970	0	NR
455	153	NR	585	313	NR	715	17	NR	845	0	NR	975	0	NR
460	98	NR	590	314	NR	720	15	NR	850	0	NR	980	0	NR
465	76	NR	595	310	NR	725	13	NR	855	0	NR	985	0	NR
470	53	NR	600	307	NR	730	11	NR	860	0	NR	990	0	NR
475	39	NR	605	303	NR	735	9	NR	865	0	NR	995	0	NR
480	35	NR	610	331	NR	740	8	NR	870	0	NR	1000	0	NR
485	36	NR	615	353	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-2

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

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	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	109	NR	635	637	NR	765	4	NR	895	0	NR
380	0	NR	510	135	NR	640	175	NR	770	3	NR	900	0	NR
385	0	NR	515	160	NR	645	171	NR	775	3	NR	905	0	NR
390	1	NR	520	180	NR	650	146	NR	780	2	NR	910	0	NR
395	1	NR	525	195	NR	655	119	NR	785	2	NR	915	0	NR
400	2	NR	530	207	NR	660	99	NR	790	2	NR	920	0	NR
405	3	NR	535	218	NR	665	82	NR	795	2	NR	925	0	NR
410	5	NR	540	227	NR	670	76	NR	800	1	NR	930	0	NR
415	10	NR	545	237	NR	675	61	NR	805	1	NR	935	0	NR
420	20	NR	550	247	NR	680	52	NR	810	1	NR	940	0	NR
425	35	NR	555	259	NR	685	44	NR	815	1	NR	945	0	NR
430	58	NR	560	271	NR	690	38	NR	820	1	NR	950	0	NR
435	90	NR	565	283	NR	695	33	NR	825	1	NR	955	0	NR
440	135	NR	570	293	NR	700	27	NR	830	1	NR	960	0	NR
445	204	NR	575	303	NR	705	24	NR	835	1	NR	965	0	NR
450	233	NR	580	310	NR	710	20	NR	840	0	NR	970	0	NR
455	153	NR	585	313	NR	715	17	NR	845	0	NR	975	0	NR
460	98	NR	590	314	NR	720	15	NR	850	0	NR	980	0	NR
465	76	NR	595	310	NR	725	13	NR	855	0	NR	985	0	NR
470	53	NR	600	307	NR	730	11	NR	860	0	NR	990	0	NR
475	39	NR	605	303	NR	735	9	NR	865	0	NR	995	0	NR
480	35	NR	610	331	NR	740	8	NR	870	0	NR	1000	0	NR
485	36	NR	615	353	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-2

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.34

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	43	NR	620	294	NR	750	6	NR	880	0	NR
365	0	NR	495	59	NR	625	294	NR	755	5	NR	885	0	NR
370	0	NR	500	81	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	109	NR	635	637	NR	765	4	NR	895	0	NR
380	0	NR	510	135	NR	640	175	NR	770	3	NR	900	0	NR
385	0	NR	515	160	NR	645	171	NR	775	3	NR	905	0	NR
390	1	NR	520	180	NR	650	146	NR	780	2	NR	910	0	NR
395	1	NR	525	195	NR	655	119	NR	785	2	NR	915	0	NR
400	2	NR	530	207	NR	660	99	NR	790	2	NR	920	0	NR
405	3	NR	535	218	NR	665	82	NR	795	2	NR	925	0	NR
410	5	NR	540	227	NR	670	76	NR	800	1	NR	930	0	NR
415	10	NR	545	237	NR	675	61	NR	805	1	NR	935	0	NR
420	20	NR	550	247	NR	680	52	NR	810	1	NR	940	0	NR
425	35	NR	555	259	NR	685	44	NR	815	1	NR	945	0	NR
430	58	NR	560	271	NR	690	38	NR	820	1	NR	950	0	NR
435	90	NR	565	283	NR	695	33	NR	825	1	NR	955	0	NR
440	135	NR	570	293	NR	700	27	NR	830	1	NR	960	0	NR
445	204	NR	575	303	NR	705	24	NR	835	1	NR	965	0	NR
450	233	NR	580	310	NR	710	20	NR	840	0	NR	970	0	NR
455	153	NR	585	313	NR	715	17	NR	845	0	NR	975	0	NR
460	98	NR	590	314	NR	720	15	NR	850	0	NR	980	0	NR
465	76	NR	595	310	NR	725	13	NR	855	0	NR	985	0	NR
470	53	NR	600	307	NR	730	11	NR	860	0	NR	990	0	NR
475	39	NR	605	303	NR	735	9	NR	865	0	NR	995	0	NR
480	35	NR	610	331	NR	740	8	NR	870	0	NR	1000	0	NR
485	36	NR	615	353	NR	745	7	NR	875	0	NR			

Summary

$R_f = 81.2$
 $R_g = 101.5$
 CIE $R_a = 83.4$
 $R_9 = 29.4$



Color Vector Graphics

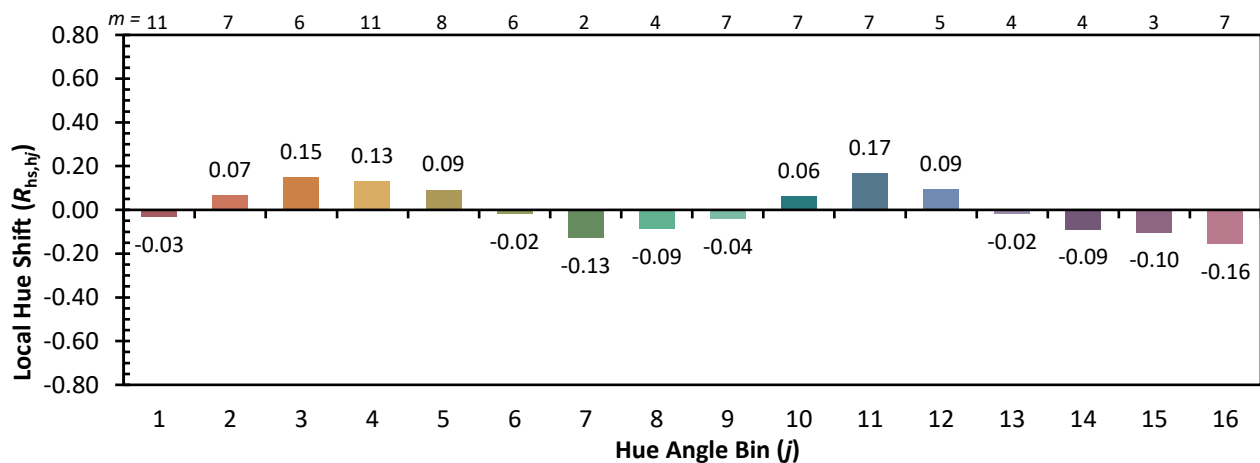


Individual Sample Fidelity Index ($R_{f,i}$)

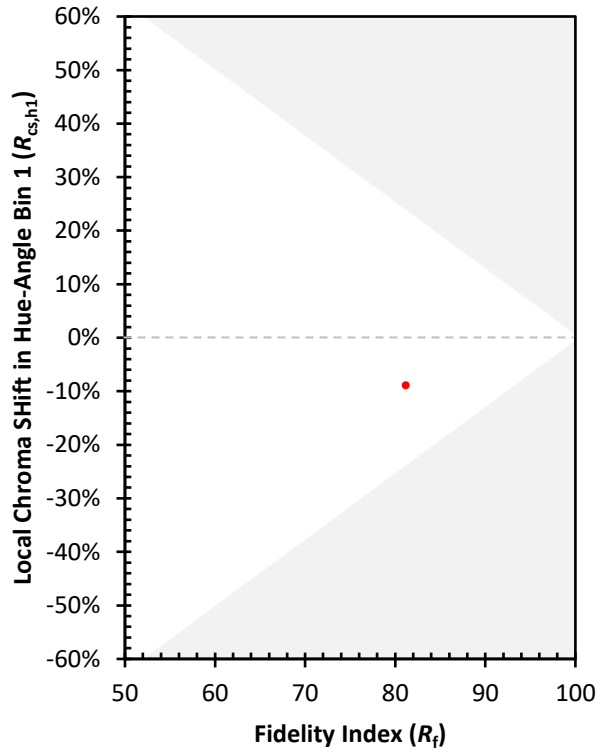
CES01 = 86	CES26 = 71	CES51 = 89	CES76 = 65
CES02 = 63	CES27 = 89	CES52 = 89	CES77 = 82
CES03 = 31	CES28 = 86	CES53 = 80	CES78 = 67
CES04 = 70	CES29 = 68	CES54 = 92	CES79 = 89
CES05 = 50	CES30 = 77	CES55 = 90	CES80 = 85
CES06 = 51	CES31 = 70	CES56 = 81	CES81 = 75
CES07 = 43	CES32 = 64	CES57 = 79	CES82 = 93
CES08 = 41	CES33 = 74	CES58 = 81	CES83 = 89
CES09 = 29	CES34 = 76	CES59 = 92	CES84 = 91
CES10 = 76	CES35 = 87	CES60 = 96	CES85 = 81
CES11 = 59	CES36 = 99	CES61 = 91	CES86 = 74
CES12 = 65	CES37 = 81	CES62 = 93	CES87 = 83
CES13 = 44	CES38 = 83	CES63 = 79	CES88 = 86
CES14 = 74	CES39 = 94	CES64 = 81	CES89 = 74
CES15 = 72	CES40 = 89	CES65 = 78	CES90 = 85
CES16 = 48	CES41 = 88	CES66 = 76	CES91 = 87
CES17 = 50	CES42 = 80	CES67 = 74	CES92 = 73
CES18 = 57	CES43 = 75	CES68 = 79	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 83	CES94 = 64
CES20 = 67	CES45 = 83	CES70 = 72	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 70	CES96 = 86
CES22 = 79	CES47 = 79	CES72 = 90	CES97 = 85
CES23 = 92	CES48 = 78	CES73 = 65	CES98 = 83
CES24 = 91	CES49 = 79	CES74 = 94	CES99 = 82
CES25 = 72	CES50 = 88	CES75 = 70	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)