

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: P1431835

Luminaire Tested: EHBR1-48-UNV-TA-L950

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1431835
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-654-5)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-48-UNV-TA-L950
Description: Elevate Round Highbay at, 48000 lumens, 5000K 90CRI LEDs with TA lens
Light Source: -
Ballast/Driver: -

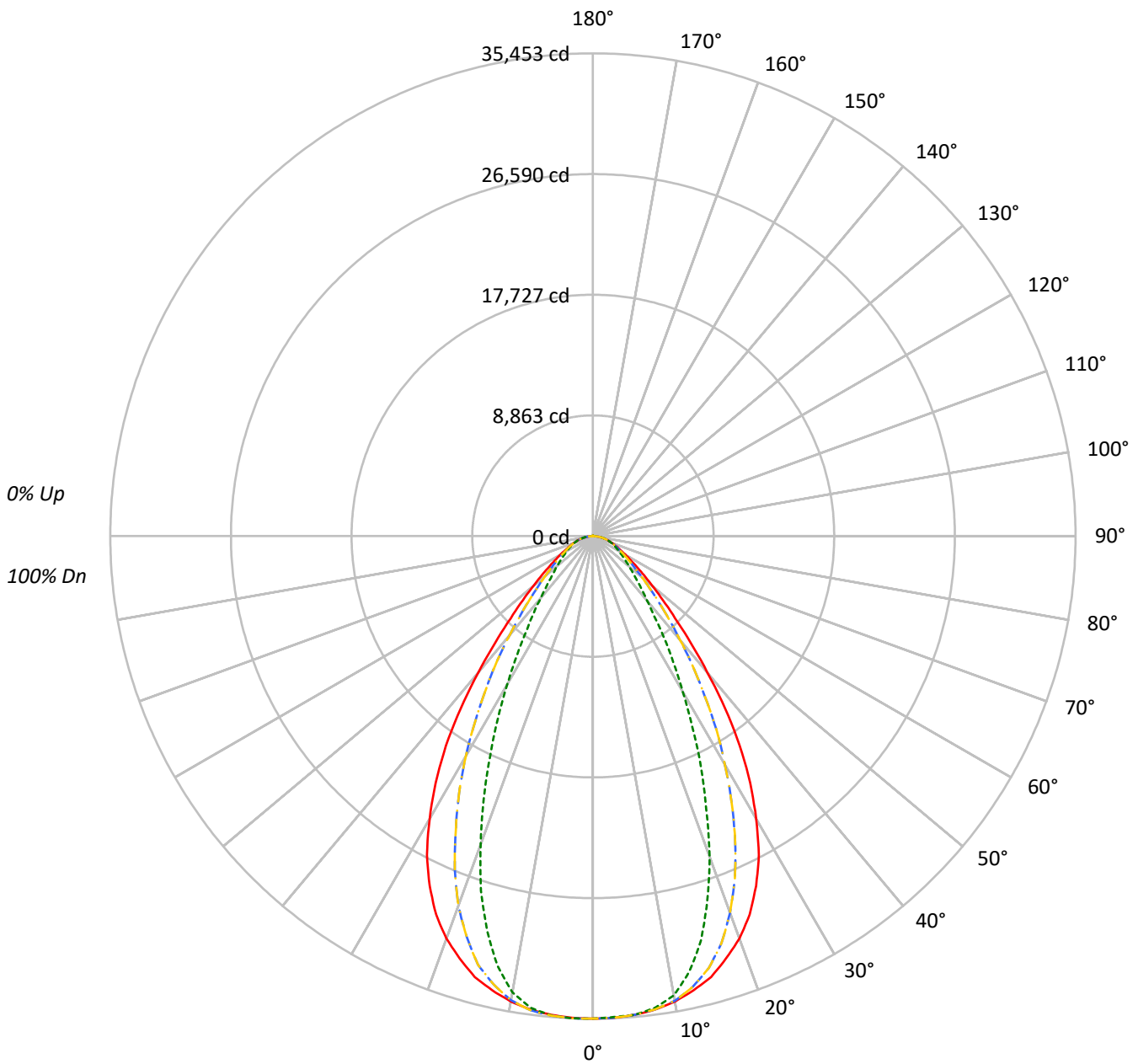
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 44025.2 lumens
Efficiency: N/A
Efficacy: 170.2 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 0.8 / 0.93
Luminous Opening: Circular (Dia: 1.71' x H: 0')
CIE Type: Direct

Input Watts (W): 258.6
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: P1431835
CATALOG NUMBER: EHBR1-48-UNV-TA-L950

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	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80
3	98	90	83	78	95	88	82	78	85	81	77	83	79	75	80	77	74	72
4	91	82	75	70	89	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	47	42	63	53	46	42	52	46	42	51	46	42	50	45	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	166420	166420	166420	166420
5°	166380	166397	166380	166573
10°	165518	163352	165518	162283
15°	163002	149297	163002	145869
20°	157196	125285	157196	120407
25°	146911	97610	146911	92552
30°	130082	71718	130082	68072
35°	107846	52151	107846	48747
40°	80259	37889	80259	36719
45°	56688	30193	56688	29148
50°	41575	25383	41575	24998
55°	31996	22528	31996	22223
60°	26016	20732	26016	20879
65°	22458	19917	22458	20107
70°	20740	19648	20740	19842
75°	19447	19447	19447	19634
80°	17743	19550	17743	19550
85°	14796	17635	14796	18158

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 59394 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3346.6	7.6
10°-20°	8994.4	20.4
20°-30°	10937.1	24.8
30°-40°	8909.1	20.2
40°-50°	5349.0	12.1
50°-60°	3078.4	7.0
60°-70°	1926.6	4.4
70°-80°	1134.7	2.6
80°-90°	331.8	0.8
90°-100°	0.1	0.0
100°-110°	0.2	0.0
110°-120°	0.2	0.0
120°-130°	0.5	0.0
130°-140°	2.3	0.0
140°-150°	4.1	0.0
150°-160°	4.5	0.0
160°-170°	4.0	0.0
170°-180°	1.7	0.0
0°-30°	23278.0	52.9
0°-40°	32187.1	73.1
0°-60°	40614.5	92.3
0°-90°	44007.6	100.0
90°-120°	0.5	0.0
90°-150°	7.4	0.0
90°-180°	18.0	0.0
0°-180°	44025.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	35438	35438	35438	35438	35438	
5°	35295	35298	35295	35336	35295	3351
15°	33527	30708	33527	30003	33527	9400
25°	28353	18838	28353	17862	28353	12925
35°	18812	9097	18812	8503	18812	11615
45°	8536	4546	8536	4389	8536	6800
55°	3908	2752	3908	2714	3908	3593
65°	2021	1792	2021	1810	2021	2043
75°	1072	1072	1072	1082	1072	1132
85°	275	327	275	337	275	301
90°	0	2	0	1	0	12
95°	0	2	0	1	0	0
105°	0	2	0	2	0	0
115°	0	2	0	2	0	0
125°	0	2	0	2	0	0
135°	3	4	3	4	3	2
145°	6	7	6	7	6	4
155°	7	11	7	12	7	4
165°	13	17	13	17	13	3
175°	16	22	16	22	16	1
180°	20	20	20	20	20	



TEST NUMBER: P1431835
 CATALOG NUMBER: EHBR1-48-UNV-TA-L950

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9
2.5°	35420.8	35412.7	35405.3	35391.9	35359.9	35391.9	35405.3	35412.7	35420.8	35443.1	35452.8
5°	35294.6	35326.6	35293.1	35300.6	35298.3	35300.6	35293.1	35326.6	35294.6	35316.9	35357.0
7.5°	35074.2	35068.3	35057.1	35013.4	34939.1	35013.4	35057.1	35068.3	35074.2	35101.6	35129.9
10°	34710.5	34734.3	34655.6	34380.2	34256.2	34380.2	34655.6	34734.3	34710.5	34755.1	34612.6
12.5°	34171.0	34228.8	33910.4	33194.9	32759.2	33194.9	33910.4	34228.8	34171.0	34210.3	33724.8
15°	33527.4	33479.1	32851.2	31347.5	30708.4	31347.5	32851.2	33479.1	33527.4	33479.1	32587.7
17.5°	32525.4	32595.2	31376.4	29162.3	27982.2	29162.3	31376.4	32595.2	32525.4	32548.4	30856.1
20°	31455.1	31476.6	29443.6	26327.7	25069.6	26327.7	29443.6	31476.6	31455.1	31325.9	28889.2
22.5°	30093.1	30101.2	27228.8	23398.2	21775.6	23398.2	27228.8	30101.2	30093.1	29877.8	26494.0
25°	28352.6	28416.4	24736.4	20429.2	18837.9	20429.2	24736.4	28416.4	28352.6	28107.6	23833.1
27.5°	26398.3	26442.0	22075.5	17455.1	15800.7	17455.1	22075.5	26442.0	26398.3	26131.1	21289.4
30°	23989.0	24269.6	19403.4	14738.5	13225.8	14738.5	19403.4	24269.6	23989.0	23958.5	18667.2
32.5°	21501.0	21997.5	16884.3	12316.6	11019.9	12316.6	16884.3	21997.5	21501.0	21642.8	16053.8
35°	18811.9	19370.1	14270.2	10239.1	9096.8	10239.1	14270.2	19370.1	18811.9	18995.2	13655.6
37.5°	15961.0	16814.5	12054.6	8481.5	7383.0	8481.5	12054.6	16814.5	15961.0	16306.9	11546.2
40°	13092.2	14010.4	9953.3	7052.0	6180.6	7052.0	9953.3	14010.4	13092.2	13655.6	9533.3
42.5°	10628.8	11333.1	8215.0	5894.1	5325.5	5894.1	8215.0	11333.1	10628.8	11028.1	7857.2
45°	8535.7	8943.2	6797.4	4999.7	4546.2	4999.7	6797.4	8943.2	8535.7	8906.0	6502.7
47.5°	6968.8	7221.9	5595.7	4320.6	3970.9	4320.6	5595.7	7221.9	6968.8	7086.1	5431.0
50°	5690.7	5828.8	4704.3	3744.6	3474.4	3744.6	4704.3	5828.8	5690.7	5762.7	4549.1
52.5°	4722.1	4790.3	3945.7	3286.6	3088.5	3286.6	3945.7	4790.3	4722.1	4733.2	3876.7
55°	3907.9	3924.2	3368.2	2889.5	2751.5	2889.5	3368.2	3924.2	3907.9	3910.8	3311.8
57.5°	3272.5	3296.2	2894.7	2571.1	2456.8	2571.1	2894.7	3296.2	3272.5	3277.7	2868.0
60°	2770.0	2785.6	2501.4	2283.9	2207.4	2283.9	2501.4	2785.6	2770.0	2763.4	2485.8
62.5°	2358.1	2387.7	2185.8	2035.2	1986.3	2035.2	2185.8	2387.7	2358.1	2364.8	2185.1
65°	2021.1	2040.4	1915.7	1809.5	1792.4	1809.5	1915.7	2040.4	2021.1	2037.5	1921.7
67.5°	1744.2	1766.5	1682.6	1620.3	1603.2	1620.3	1682.6	1766.5	1744.2	1757.6	1684.1
70°	1510.5	1510.5	1465.2	1430.3	1431.0	1430.3	1465.2	1510.5	1510.5	1512.7	1473.3
72.5°	1281.1	1289.2	1258.9	1248.5	1252.9	1248.5	1258.9	1289.2	1281.1	1309.3	1267.8
75°	1071.8	1080.7	1065.1	1059.2	1071.8	1059.2	1065.1	1080.7	1071.8	1086.6	1068.1
77.5°	855.8	872.2	869.9	877.4	901.1	877.4	869.9	872.2	855.8	878.1	882.5
80°	656.1	670.3	671.0	689.5	722.9	689.5	671.0	670.3	656.1	670.3	681.4
82.5°	461.7	470.6	476.5	507.7	536.7	507.7	476.5	470.6	461.7	469.9	484.7
85°	274.6	267.2	277.6	296.9	327.3	296.9	277.6	267.2	274.6	274.6	282.1
87.5°	87.6	85.4	84.6	103.1	118.0	103.1	84.6	85.4	87.6	90.6	94.3
90°	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1431835
 CATALOG NUMBER: EHBR1-48-UNV-TA-L950

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	1.5	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.7	2.2	0.7	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.7	2.2	0.7	0.0	0.0	0.0	0.0	0.7
127.5°	0.0	0.0	0.0	0.7	2.2	0.7	0.0	0.0	0.0	0.0	0.7
130°	0.7	0.0	0.7	1.5	2.2	1.5	0.7	0.0	0.7	0.7	1.5
132.5°	1.5	1.5	2.2	2.2	3.0	2.2	2.2	1.5	1.5	2.2	2.2
135°	3.0	2.2	3.0	3.0	3.7	3.0	3.0	2.2	3.0	3.0	3.0
137.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
140°	4.5	4.5	4.5	4.5	5.2	4.5	4.5	4.5	4.5	4.5	4.5
142.5°	5.2	5.2	5.2	5.9	5.9	5.9	5.2	5.2	5.2	5.9	5.9
145°	5.9	5.9	5.9	6.7	6.7	6.7	5.9	5.9	5.9	6.7	6.7
147.5°	6.7	6.7	6.7	8.2	8.9	8.2	6.7	6.7	6.7	6.7	7.4
150°	7.4	7.4	7.4	8.9	9.7	8.9	7.4	7.4	7.4	7.4	8.2
152.5°	7.4	7.4	8.2	9.7	10.4	9.7	8.2	7.4	7.4	7.4	8.9
155°	7.4	7.4	8.9	10.4	11.1	10.4	8.9	7.4	7.4	8.2	9.7
157.5°	8.9	8.9	10.4	11.9	13.4	11.9	10.4	8.9	8.9	9.7	11.1
160°	10.4	10.4	11.9	13.4	14.9	13.4	11.9	10.4	10.4	11.1	12.6
162.5°	11.1	11.9	12.6	14.9	16.4	14.9	12.6	11.9	11.1	11.9	13.4
165°	12.6	12.6	14.1	15.6	17.1	15.6	14.1	12.6	12.6	12.6	14.9
167.5°	13.4	13.4	14.9	17.1	17.8	17.1	14.9	13.4	13.4	13.4	15.6
170°	13.4	14.1	15.6	17.8	18.6	17.8	15.6	14.1	13.4	14.1	16.4
172.5°	14.9	15.6	17.1	19.3	20.1	19.3	17.1	15.6	14.9	15.6	17.8
175°	16.4	17.1	19.3	20.8	22.3	20.8	19.3	17.1	16.4	17.1	19.3
177.5°	17.1	17.8	20.1	21.6	23.0	21.6	20.1	17.8	17.1	17.8	20.1
180°	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1



TEST NUMBER: P1431835
 CATALOG NUMBER: EHBR1-48-UNV-TA-L950

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	35437.9	35437.9	35437.9	35437.9	35437.9	35437.9
2.5°	35437.2	35450.5	35437.2	35452.8	35443.1	35420.8
5°	35341.5	35335.5	35341.5	35357.0	35316.9	35294.6
7.5°	34970.3	34946.6	34970.3	35129.9	35101.6	35074.2
10°	34195.4	34032.1	34195.4	34612.6	34755.1	34710.5
12.5°	32844.6	32338.4	32844.6	33724.8	34210.3	34171.0
15°	30872.4	30003.3	30872.4	32587.7	33479.1	33527.4
17.5°	28320.6	27326.1	28320.6	30856.1	32548.4	32525.4
20°	25545.4	24093.6	25545.4	28889.2	31325.9	31455.1
22.5°	22514.8	20951.7	22514.8	26494.0	29877.8	30093.1
25°	19491.8	17861.8	19491.8	23833.1	28107.6	28352.6
27.5°	16666.1	15114.8	16666.1	21289.4	26131.1	26398.3
30°	14049.7	12553.4	14049.7	18667.2	23958.5	23989.0
32.5°	11861.6	10378.7	11861.6	16053.8	21642.8	21501.0
35°	9732.9	8503.1	9732.9	13655.6	18995.2	18811.9
37.5°	8128.2	7142.5	8128.2	11546.2	16306.9	15961.0
40°	6779.6	5989.8	6779.6	9533.3	13655.6	13092.2
42.5°	5667.7	5076.9	5667.7	7857.2	11028.1	10628.8
45°	4832.7	4388.9	4832.7	6502.7	8906.0	8535.7
47.5°	4217.3	3856.7	4217.3	5431.0	7086.1	6968.8
50°	3669.6	3421.6	3669.6	4549.1	5762.7	5690.7
52.5°	3227.9	3048.3	3227.9	3876.7	4733.2	4722.1
55°	2860.6	2714.3	2860.6	3311.8	3910.8	3907.9
57.5°	2540.7	2446.4	2540.7	2868.0	3277.7	3272.5
60°	2255.6	2223.0	2255.6	2485.8	2763.4	2770.0
62.5°	2037.5	1989.1	2037.5	2185.1	2364.8	2358.1
65°	1820.7	1809.5	1820.7	1921.7	2037.5	2021.1
67.5°	1624.7	1615.1	1624.7	1684.1	1757.6	1744.2
70°	1437.7	1445.1	1437.7	1473.3	1512.7	1510.5
72.5°	1256.6	1258.1	1256.6	1267.8	1309.3	1281.1
75°	1082.1	1082.1	1082.1	1068.1	1086.6	1071.8
77.5°	892.1	914.4	892.1	882.5	878.1	855.8
80°	701.4	722.9	701.4	681.4	670.3	656.1
82.5°	508.4	543.3	508.4	484.7	469.9	461.7
85°	315.4	337.0	315.4	282.1	274.6	274.6
87.5°	118.7	129.9	118.7	94.3	90.6	87.6
90°	0.0	0.7	0.0	0.0	0.0	0.0
92.5°	0.0	0.7	0.0	0.0	0.0	0.0
95°	0.0	0.7	0.0	0.0	0.0	0.0
97.5°	0.0	0.7	0.0	0.0	0.0	0.0
100°	0.0	1.5	0.0	0.0	0.0	0.0
102.5°	0.0	1.5	0.0	0.0	0.0	0.0
105°	0.0	1.5	0.0	0.0	0.0	0.0
107.5°	0.0	1.5	0.0	0.0	0.0	0.0
110°	0.0	1.5	0.0	0.0	0.0	0.0



TEST NUMBER: P1431835
 CATALOG NUMBER: EHBR1-48-UNV-TA-L950

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.0	1.5	0.0	0.0	0.0	0.0
115°	0.0	1.5	0.0	0.0	0.0	0.0
117.5°	0.0	1.5	0.0	0.0	0.0	0.0
120°	0.7	1.5	0.7	0.0	0.0	0.0
122.5°	0.7	2.2	0.7	0.0	0.0	0.0
125°	0.7	2.2	0.7	0.7	0.0	0.0
127.5°	1.5	2.2	1.5	0.7	0.0	0.0
130°	1.5	2.2	1.5	1.5	0.7	0.7
132.5°	3.0	3.0	3.0	2.2	2.2	1.5
135°	3.0	3.7	3.0	3.0	3.0	3.0
137.5°	3.7	4.5	3.7	3.7	3.7	3.7
140°	5.2	5.2	5.2	4.5	4.5	4.5
142.5°	5.9	6.7	5.9	5.9	5.9	5.2
145°	7.4	7.4	7.4	6.7	6.7	5.9
147.5°	8.2	8.9	8.2	7.4	6.7	6.7
150°	9.7	10.4	9.7	8.2	7.4	7.4
152.5°	9.7	11.1	9.7	8.9	7.4	7.4
155°	11.1	11.9	11.1	9.7	8.2	7.4
157.5°	12.6	13.4	12.6	11.1	9.7	8.9
160°	14.1	14.9	14.1	12.6	11.1	10.4
162.5°	15.6	16.4	15.6	13.4	11.9	11.1
165°	16.4	17.1	16.4	14.9	12.6	12.6
167.5°	17.1	17.8	17.1	15.6	13.4	13.4
170°	17.8	18.6	17.8	16.4	14.1	13.4
172.5°	19.3	20.1	19.3	17.8	15.6	14.9
175°	20.8	22.3	20.8	19.3	17.1	16.4
177.5°	21.6	23.0	21.6	20.1	17.8	17.1
180°	20.1	20.1	20.1	20.1	20.1	20.1



TEST NUMBER: P1431835
 CATALOG NUMBER: EHBR1-48-UNV-TA-L950

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	21.51	22.77	21.87	23.09	23.40	19.77	21.04	20.14	21.35	21.67
	3H	22.74	23.87	23.12	24.20	24.56	21.47	22.59	21.85	22.92	23.29
	4H	23.25	24.30	23.66	24.65	25.04	22.19	23.24	22.59	23.59	23.98
	6H	23.64	24.60	24.06	24.98	25.37	22.80	23.76	23.21	24.13	24.53
	8H	23.76	24.68	24.19	25.07	25.47	23.02	23.93	23.45	24.33	24.73
	12H	23.83	24.71	24.27	25.09	25.52	23.17	24.04	23.60	24.42	24.85
4H	2H	21.80	22.85	22.20	23.20	23.59	20.38	21.43	20.78	21.78	22.16
	3H	23.30	24.16	23.71	24.56	24.97	22.29	23.15	22.70	23.56	23.96
	4H	23.95	24.72	24.39	25.15	25.59	23.14	23.91	23.57	24.33	24.78
	6H	24.48	25.15	24.95	25.60	26.07	23.88	24.55	24.34	24.99	25.46
	8H	24.65	25.28	25.12	25.72	26.20	24.15	24.78	24.62	25.22	25.70
	12H	24.76	25.31	25.25	25.80	26.27	24.34	24.89	24.83	25.38	25.85
8H	4H	24.16	24.79	24.63	25.23	25.71	23.44	24.06	23.91	24.51	24.98
	6H	24.82	25.33	25.33	25.83	26.31	24.31	24.82	24.82	25.32	25.80
	8H	25.07	25.52	25.59	26.04	26.53	24.67	25.13	25.20	25.65	26.14
	12H	25.25	25.65	25.76	26.14	26.72	24.95	25.35	25.47	25.85	26.42
12H	4H	24.17	24.72	24.66	25.21	25.68	23.46	24.01	23.94	24.49	24.97
	6H	24.86	25.32	25.38	25.83	26.33	24.36	24.82	24.89	25.34	25.83
	8H	25.16	25.56	25.68	26.06	26.63	24.78	25.18	25.30	25.68	26.25

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-8

Test Date: 08/04/2025

Luminaire Tested: EHBR-60-L950-N

Data in this report applies to families of products including EHBR-60-L950-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-8
 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-L950-N**
 Description: Elevate Round Highbay at, 60000 lumens, 5000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 4901
 CIE u': 0.2131
 CIE v': 0.4853
 Duv: -0.0008
 CIE x: 0.3477
 CIE y: 0.3520
 CIE z: 0.3003
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 574
 Purity: 9.953987
 Rf: 90.7
 Rg: 100.5

CRI (Ra):	94.3		
R1:	95.8	R9:	72.3
R2:	96.5	R10:	89.1
R3:	94.4	R11:	94.9
R4:	95.3	R12:	68.4
R5:	94.1	R13:	96.4
R6:	92.5	R14:	96.4
R7:	95.5	R15:	93.9
R8:	90.1		



Test Conditions

Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-8

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: SP1-2506-472-8

CIE 1931 Chromaticity Diagram



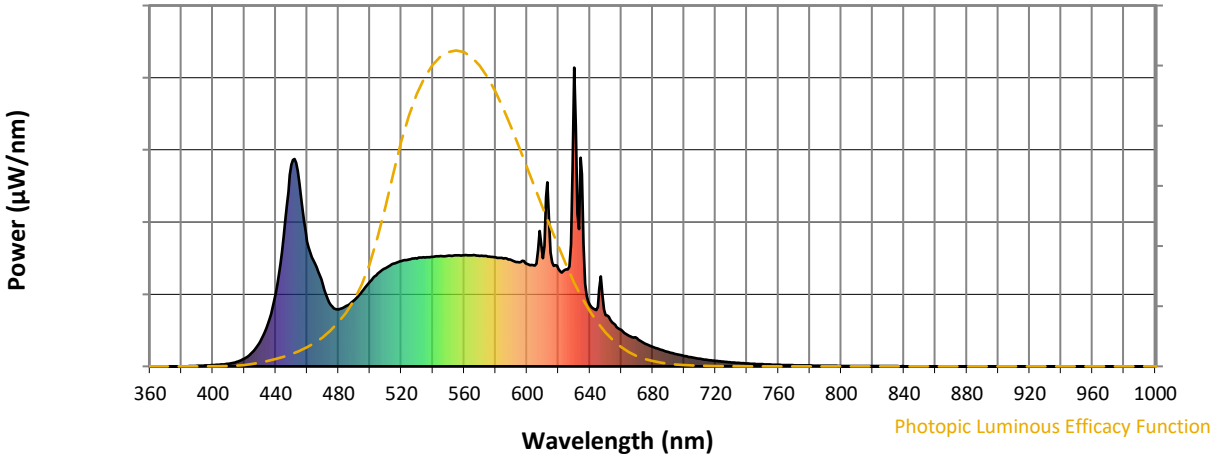
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-8

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	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	284	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	311	NR	635	643	NR	765	4	NR	895	0	NR
380	0	NR	510	329	NR	640	206	NR	770	4	NR	900	0	NR
385	1	NR	515	344	NR	645	199	NR	775	3	NR	905	0	NR
390	2	NR	520	353	NR	650	172	NR	780	3	NR	910	0	NR
395	3	NR	525	357	NR	655	143	NR	785	2	NR	915	0	NR
400	5	NR	530	362	NR	660	122	NR	790	2	NR	920	0	NR
405	6	NR	535	365	NR	665	102	NR	795	2	NR	925	0	NR
410	9	NR	540	367	NR	670	94	NR	800	2	NR	930	0	NR
415	15	NR	545	369	NR	675	76	NR	805	1	NR	935	0	NR
420	26	NR	550	370	NR	680	65	NR	810	1	NR	940	0	NR
425	47	NR	555	372	NR	685	56	NR	815	1	NR	945	0	NR
430	81	NR	560	372	NR	690	48	NR	820	1	NR	950	0	NR
435	143	NR	565	371	NR	695	41	NR	825	1	NR	955	0	NR
440	243	NR	570	370	NR	700	35	NR	830	1	NR	960	0	NR
445	434	NR	575	367	NR	705	30	NR	835	1	NR	965	0	NR
450	675	NR	580	365	NR	710	25	NR	840	1	NR	970	0	NR
455	615	NR	585	361	NR	715	22	NR	845	0	NR	975	0	NR
460	418	NR	590	356	NR	720	19	NR	850	0	NR	980	0	NR
465	344	NR	595	348	NR	725	16	NR	855	0	NR	985	0	NR
470	272	NR	600	343	NR	730	13	NR	860	0	NR	990	0	NR
475	206	NR	605	337	NR	735	11	NR	865	0	NR	995	0	NR
480	190	NR	610	362	NR	740	10	NR	870	0	NR	1000	0	NR
485	202	NR	615	381	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-8

Scotopic Flux vs. Wavelength



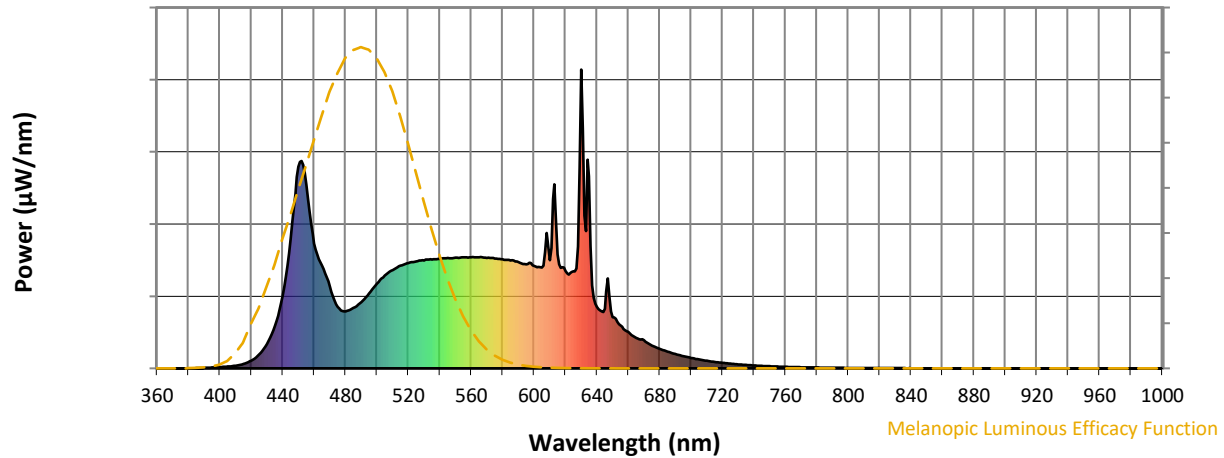
Scotopic Lumens: NR

S/P: 2.04

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	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	284	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	311	NR	635	643	NR	765	4	NR	895	0	NR
380	0	NR	510	329	NR	640	206	NR	770	4	NR	900	0	NR
385	1	NR	515	344	NR	645	199	NR	775	3	NR	905	0	NR
390	2	NR	520	353	NR	650	172	NR	780	3	NR	910	0	NR
395	3	NR	525	357	NR	655	143	NR	785	2	NR	915	0	NR
400	5	NR	530	362	NR	660	122	NR	790	2	NR	920	0	NR
405	6	NR	535	365	NR	665	102	NR	795	2	NR	925	0	NR
410	9	NR	540	367	NR	670	94	NR	800	2	NR	930	0	NR
415	15	NR	545	369	NR	675	76	NR	805	1	NR	935	0	NR
420	26	NR	550	370	NR	680	65	NR	810	1	NR	940	0	NR
425	47	NR	555	372	NR	685	56	NR	815	1	NR	945	0	NR
430	81	NR	560	372	NR	690	48	NR	820	1	NR	950	0	NR
435	143	NR	565	371	NR	695	41	NR	825	1	NR	955	0	NR
440	243	NR	570	370	NR	700	35	NR	830	1	NR	960	0	NR
445	434	NR	575	367	NR	705	30	NR	835	1	NR	965	0	NR
450	675	NR	580	365	NR	710	25	NR	840	1	NR	970	0	NR
455	615	NR	585	361	NR	715	22	NR	845	0	NR	975	0	NR
460	418	NR	590	356	NR	720	19	NR	850	0	NR	980	0	NR
465	344	NR	595	348	NR	725	16	NR	855	0	NR	985	0	NR
470	272	NR	600	343	NR	730	13	NR	860	0	NR	990	0	NR
475	206	NR	605	337	NR	735	11	NR	865	0	NR	995	0	NR
480	190	NR	610	362	NR	740	10	NR	870	0	NR	1000	0	NR
485	202	NR	615	381	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-8

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 4.41

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	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	284	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	311	NR	635	643	NR	765	4	NR	895	0	NR
380	0	NR	510	329	NR	640	206	NR	770	4	NR	900	0	NR
385	1	NR	515	344	NR	645	199	NR	775	3	NR	905	0	NR
390	2	NR	520	353	NR	650	172	NR	780	3	NR	910	0	NR
395	3	NR	525	357	NR	655	143	NR	785	2	NR	915	0	NR
400	5	NR	530	362	NR	660	122	NR	790	2	NR	920	0	NR
405	6	NR	535	365	NR	665	102	NR	795	2	NR	925	0	NR
410	9	NR	540	367	NR	670	94	NR	800	2	NR	930	0	NR
415	15	NR	545	369	NR	675	76	NR	805	1	NR	935	0	NR
420	26	NR	550	370	NR	680	65	NR	810	1	NR	940	0	NR
425	47	NR	555	372	NR	685	56	NR	815	1	NR	945	0	NR
430	81	NR	560	372	NR	690	48	NR	820	1	NR	950	0	NR
435	143	NR	565	371	NR	695	41	NR	825	1	NR	955	0	NR
440	243	NR	570	370	NR	700	35	NR	830	1	NR	960	0	NR
445	434	NR	575	367	NR	705	30	NR	835	1	NR	965	0	NR
450	675	NR	580	365	NR	710	25	NR	840	1	NR	970	0	NR
455	615	NR	585	361	NR	715	22	NR	845	0	NR	975	0	NR
460	418	NR	590	356	NR	720	19	NR	850	0	NR	980	0	NR
465	344	NR	595	348	NR	725	16	NR	855	0	NR	985	0	NR
470	272	NR	600	343	NR	730	13	NR	860	0	NR	990	0	NR
475	206	NR	605	337	NR	735	11	NR	865	0	NR	995	0	NR
480	190	NR	610	362	NR	740	10	NR	870	0	NR	1000	0	NR
485	202	NR	615	381	NR	745	8	NR	875	0	NR			

Summary

$R_f = 90.7$
 $R_g = 100.5$
 CIE $R_a = 94.3$
 $R_9 = 72.3$

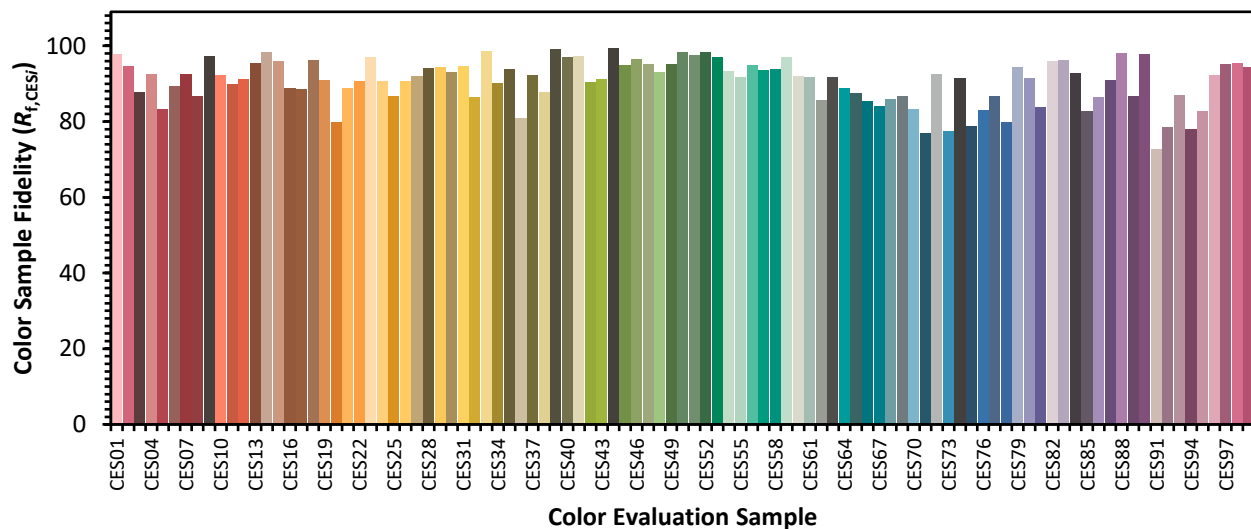


Color Vector Graphics



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

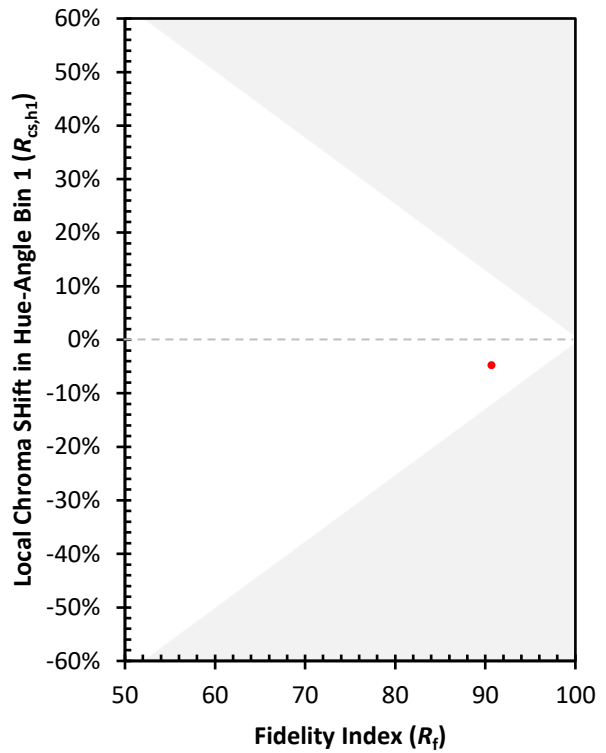
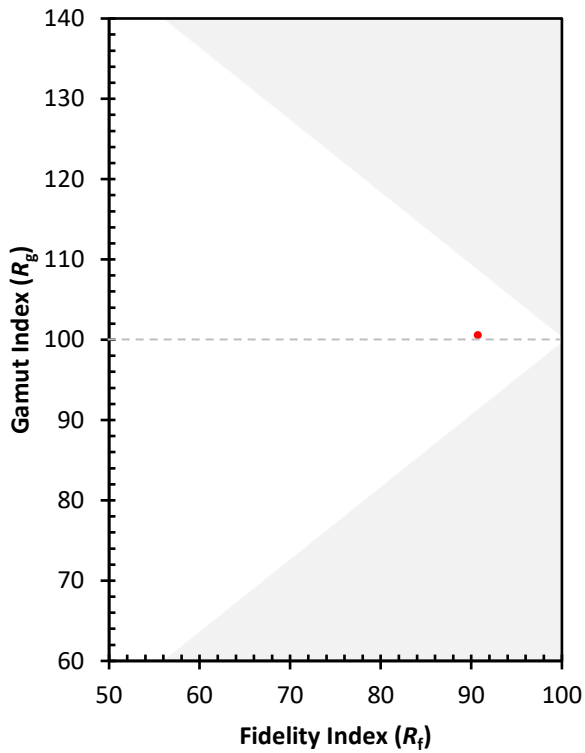
CES01 = 85	CES26 = 91	CES51 = 98	CES76 = 83
CES02 = 61	CES27 = 92	CES52 = 98	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 97	CES78 = 80
CES04 = 69	CES29 = 94	CES54 = 93	CES79 = 94
CES05 = 48	CES30 = 93	CES55 = 92	CES80 = 91
CES06 = 50	CES31 = 95	CES56 = 95	CES81 = 84
CES07 = 41	CES32 = 86	CES57 = 94	CES82 = 96
CES08 = 40	CES33 = 99	CES58 = 94	CES83 = 96
CES09 = 29	CES34 = 90	CES59 = 97	CES84 = 93
CES10 = 73	CES35 = 94	CES60 = 92	CES85 = 83
CES11 = 56	CES36 = 81	CES61 = 92	CES86 = 86
CES12 = 62	CES37 = 92	CES62 = 86	CES87 = 91
CES13 = 43	CES38 = 88	CES63 = 92	CES88 = 98
CES14 = 74	CES39 = 99	CES64 = 89	CES89 = 87
CES15 = 71	CES40 = 97	CES65 = 88	CES90 = 98
CES16 = 47	CES41 = 97	CES66 = 85	CES91 = 73
CES17 = 48	CES42 = 90	CES67 = 84	CES92 = 79
CES18 = 56	CES43 = 91	CES68 = 86	CES93 = 87
CES19 = 70	CES44 = 99	CES69 = 87	CES94 = 78
CES20 = 65	CES45 = 95	CES70 = 83	CES95 = 83
CES21 = 85	CES46 = 97	CES71 = 77	CES96 = 92
CES22 = 77	CES47 = 95	CES72 = 92	CES97 = 95
CES23 = 91	CES48 = 93	CES73 = 77	CES98 = 95
CES24 = 90	CES49 = 95	CES74 = 92	CES99 = 94
CES25 = 70	CES50 = 98	CES75 = 79	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)