

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: P1432946

Luminaire Tested: EHBR1-30-UNV-TASM-L850

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1432946
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: EHBR1-30-UNV-TASM-L850
Description: Elevate Round Highbay at, 30000 lumens, 5000K 80CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

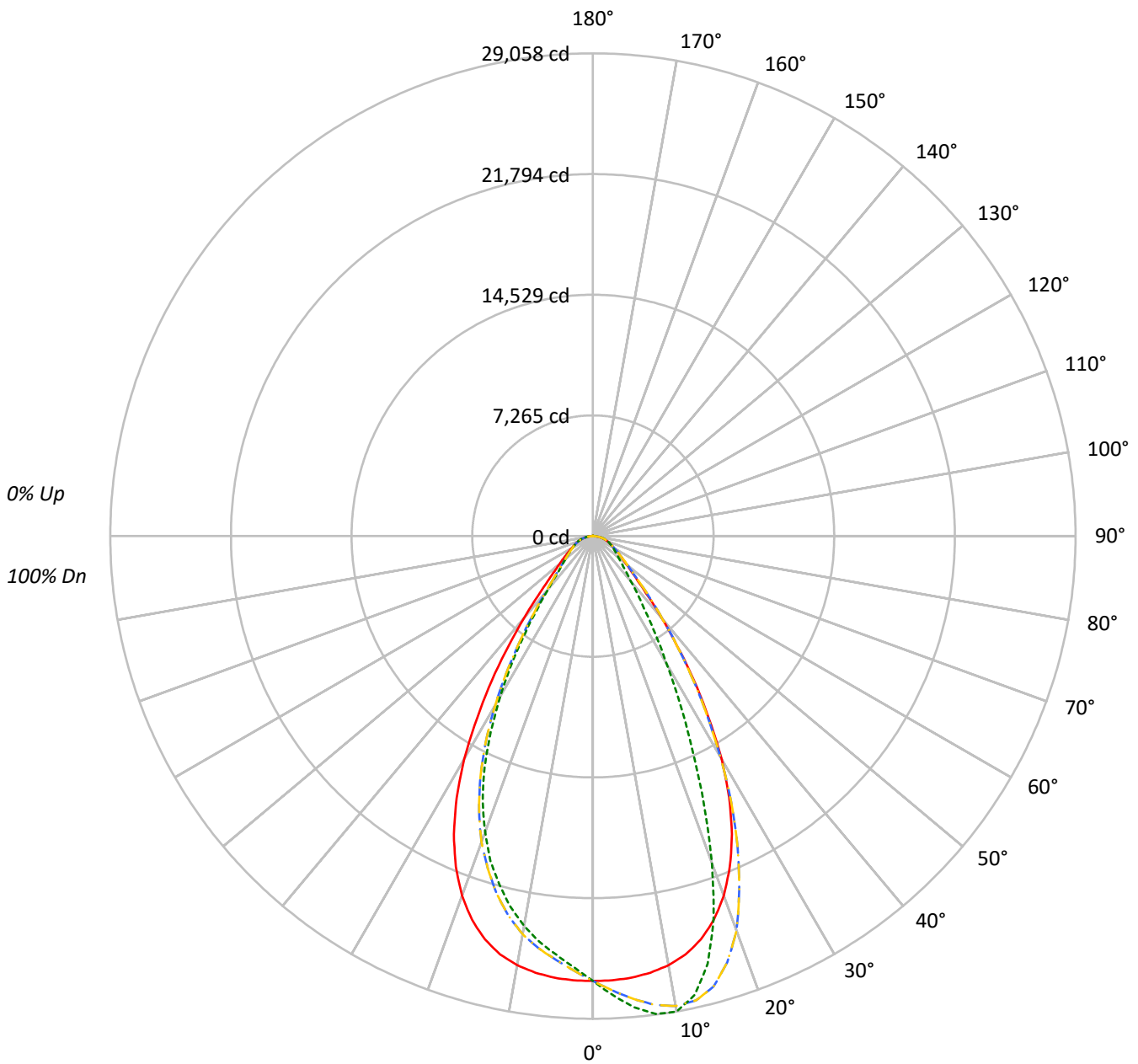
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29943.4 lumens
Efficiency: N/A
Efficacy: 187.4 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): 159.8
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: P1432946
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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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	92	90	
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	83	81	
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	76	74	
4	93	84	77	72	91	83	77	72	80	75	71	78	74	70	76	72	69	69	67	
5	87	78	71	66	86	77	70	65	75	69	65	73	68	64	71	67	64	64	62	
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	59	57	
7	78	67	60	56	76	67	60	56	65	59	55	64	59	55	63	58	55	55	53	
8	74	63	56	52	72	62	56	52	61	55	51	60	55	51	59	54	51	51	49	
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	47	46	
10	66	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	45	43	

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	125759	125759	125759	125759
5°	125808	134214	125808	119280
10°	125079	138565	125079	113630
15°	122205	129638	122205	105672
20°	115093	104682	115093	94784
25°	102624	73068	102624	80023
30°	83993	47916	83993	60352
35°	60771	31304	60771	40530
40°	39677	21789	39677	25812
45°	25459	17068	25459	18599
50°	19157	14697	19157	15698
55°	15894	13605	15894	14081
60°	14046	13224	14046	13305
65°	13152	13102	13152	13045
70°	12948	13335	12948	13162
75°	12846	13684	12846	13274
80°	12562	14382	12562	13443
85°	10582	13363	10582	12743

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 35794 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2546.3	8.5
10°-20°	6927.4	23.1
20°-30°	8124.4	27.1
30°-40°	5650.0	18.9
40°-50°	2807.8	9.4
50°-60°	1679.4	5.6
60°-70°	1182.0	3.9
70°-80°	761.4	2.5
80°-90°	241.8	0.8
90°-100°	1.4	0.0
100°-110°	1.7	0.0
110°-120°	1.7	0.0
120°-130°	2.2	0.0
130°-140°	2.9	0.0
140°-150°	3.5	0.0
150°-160°	3.9	0.0
160°-170°	3.9	0.0
170°-180°	1.7	0.0
0°-30°	17598.1	58.8
0°-40°	23248.2	77.6
0°-60°	27735.3	92.6
0°-90°	29920.6	99.9
90°-120°	4.8	0.0
90°-150°	13.4	0.0
90°-180°	23.0	0.1
0°-180°	29943.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	26779	26779	26779	26779	26779	
5°	26688	28471	26688	25303	26688	2533
15°	25136	26665	25136	21735	25136	7025
25°	19806	14102	19806	15444	19806	8966
35°	10600	5460	10600	7070	10600	6618
45°	3833	2570	3833	2800	3833	3137
55°	1941	1662	1941	1720	1941	1775
65°	1184	1179	1184	1174	1184	1189
75°	708	754	708	732	708	743
85°	196	248	196	236	196	218
90°	0	4	0	0	0	10
95°	1	4	1	0	1	1
105°	1	4	1	1	1	1
115°	2	4	2	1	2	1
125°	2	5	2	2	2	2
135°	4	6	4	2	4	3
145°	6	6	6	6	6	4
155°	8	9	8	10	8	4
165°	14	17	14	14	14	4
175°	18	22	18	17	18	2
180°	19	19	19	19	19	



TEST NUMBER: P1432946
 CATALOG NUMBER: EHBR1-30-UNV-TASM-L850

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	26779.4	26779.4	26779.4	26779.4	26779.4	26779.4	26779.4	26779.4	26779.4	26779.4	26779.4
2.5°	26763.8	27109.8	27390.1	27574.8	27666.2	27574.8	27390.1	27109.8	26763.8	26419.8	26183.3
5°	26688.0	27381.0	27968.0	28352.1	28471.2	28352.1	27968.0	27381.0	26688.0	26033.2	25598.8
7.5°	26506.8	27586.3	28458.6	28907.0	29016.5	28907.0	28458.6	27586.3	26506.8	25579.8	25030.9
10°	26230.1	27715.9	28723.7	29045.1	29058.2	29045.1	28723.7	27715.9	26230.1	24981.2	24333.9
12.5°	25788.6	27669.7	28634.8	28529.4	28289.8	28529.4	28634.8	27669.7	25788.6	24250.0	23433.6
15°	25135.9	27396.1	28072.0	27213.7	26664.9	27213.7	28072.0	27396.1	25135.9	23262.8	22315.8
17.5°	24215.9	26883.9	26896.9	25199.1	24163.7	25199.1	26896.9	26883.9	24215.9	22055.7	21012.7
20°	23030.3	26062.3	25279.0	22173.7	20946.9	22173.7	25279.0	26062.3	23030.3	20628.5	19605.1
22.5°	21543.9	24954.5	23025.8	19130.1	17456.4	19130.1	23025.8	24954.5	21543.9	18968.9	17903.8
25°	19805.5	23597.2	20601.9	15813.9	14101.5	15813.9	20601.9	23597.2	19805.5	16991.4	16028.3
27.5°	17760.7	21876.9	18020.8	12922.5	11342.7	12922.5	18020.8	21876.9	17760.7	14949.6	13965.9
30°	15489.5	19671.4	15334.8	10291.2	8836.4	10291.2	15334.8	19671.4	15489.5	12655.8	11775.0
32.5°	12946.5	17509.6	12755.3	8245.9	7013.6	8245.9	12755.3	17509.6	12946.5	10466.9	9546.5
35°	10600.5	14805.0	10429.3	6479.3	5460.4	6479.3	10429.3	14805.0	10600.5	8400.5	7496.6
37.5°	8319.2	12249.6	8313.7	5217.4	4429.0	5217.4	8313.7	12249.6	8319.2	6531.0	5797.3
40°	6472.3	9578.1	6513.9	4164.9	3554.3	4164.9	6513.9	9578.1	6472.3	4969.4	4499.8
42.5°	4904.0	7323.9	5119.9	3418.2	3019.0	3418.2	5119.9	7323.9	4904.0	3915.3	3563.8
45°	3833.4	5389.6	3998.2	2883.8	2570.0	2883.8	3998.2	5389.6	3833.4	3153.0	2917.0
47.5°	3121.8	4165.3	3240.4	2473.6	2253.7	2473.6	3240.4	4165.3	3121.8	2666.9	2490.2
50°	2622.2	3196.2	2690.5	2159.3	2011.7	2159.3	2690.5	3196.2	2622.2	2283.8	2165.8
52.5°	2252.7	2606.7	2291.3	1924.2	1824.8	1924.2	2291.3	2606.7	2252.7	1998.1	1924.7
55°	1941.3	2191.4	1992.6	1730.4	1661.7	1730.4	1992.6	2191.4	1941.3	1778.2	1723.9
57.5°	1704.8	1859.0	1730.4	1565.2	1519.5	1565.2	1730.4	1859.0	1704.8	1582.3	1553.2
60°	1495.5	1609.9	1527.1	1421.1	1408.0	1421.1	1527.1	1609.9	1495.5	1423.6	1404.5
62.5°	1334.3	1406.6	1350.3	1291.5	1280.0	1291.5	1350.3	1406.6	1334.3	1279.0	1282.5
65°	1183.6	1250.9	1206.7	1175.0	1179.1	1175.0	1206.7	1250.9	1183.6	1157.9	1163.5
67.5°	1067.1	1102.2	1083.2	1065.1	1069.6	1065.1	1083.2	1102.2	1067.1	1041.9	1050.5
70°	943.0	980.7	961.1	963.6	971.2	963.6	961.1	980.7	943.0	935.5	942.0
72.5°	824.5	853.6	847.1	853.1	861.2	853.1	847.1	853.6	824.5	823.6	824.1
75°	708.0	730.1	733.2	741.6	754.2	741.6	733.2	730.1	708.0	700.5	709.5
77.5°	581.0	606.1	615.6	627.2	645.8	627.2	615.6	606.1	581.0	586.0	590.6
80°	464.5	476.0	497.1	505.7	531.8	505.7	497.1	476.0	464.5	456.0	462.5
82.5°	340.0	350.5	368.6	384.7	399.7	384.7	368.6	350.5	340.0	335.9	336.4
85°	196.4	212.4	224.5	243.5	248.0	243.5	224.5	212.4	196.4	200.9	196.4
87.5°	68.8	73.8	84.4	91.9	92.4	91.9	84.4	73.8	68.8	70.3	63.8
90°	0.5	1.0	1.5	3.0	4.0	3.0	1.5	1.0	0.5	0.5	0.5
92.5°	0.5	1.0	1.5	3.0	4.0	3.0	1.5	1.0	0.5	0.5	0.5
95°	1.0	1.0	1.5	3.0	4.0	3.0	1.5	1.0	1.0	0.5	0.5
97.5°	1.0	1.0	1.5	3.0	4.0	3.0	1.5	1.0	1.0	0.5	0.5
100°	1.0	1.0	1.5	3.0	4.0	3.0	1.5	1.0	1.0	1.0	0.5
102.5°	1.0	1.5	2.0	3.5	4.0	3.5	2.0	1.5	1.0	1.0	0.5
105°	1.0	1.5	2.0	3.5	4.5	3.5	2.0	1.5	1.0	1.0	0.5
107.5°	1.0	1.5	2.0	3.5	4.5	3.5	2.0	1.5	1.0	1.0	1.0
110°	1.0	1.5	2.0	3.5	4.5	3.5	2.0	1.5	1.0	1.0	1.0



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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°	1.0	1.5	2.0	3.5	4.5	3.5	2.0	1.5	1.0	1.0	1.0
115°	1.5	1.5	2.0	3.5	4.5	3.5	2.0	1.5	1.5	1.0	1.0
117.5°	1.5	1.5	2.0	3.5	4.5	3.5	2.0	1.5	1.5	1.5	1.0
120°	1.5	1.5	2.6	3.5	4.5	3.5	2.6	1.5	1.5	1.5	1.0
122.5°	2.0	2.0	2.6	4.0	4.5	4.0	2.6	2.0	2.0	2.0	1.5
125°	2.0	2.0	3.0	4.0	5.0	4.0	3.0	2.0	2.0	2.6	2.0
127.5°	2.6	2.6	3.0	4.0	5.0	4.0	3.0	2.6	2.6	2.6	2.0
130°	3.0	2.6	3.0	4.5	5.0	4.5	3.0	2.6	3.0	3.0	2.6
132.5°	3.5	3.0	3.5	5.0	5.5	5.0	3.5	3.0	3.5	4.0	3.5
135°	4.0	3.0	4.0	4.5	5.5	4.5	4.0	3.0	4.0	4.5	3.5
137.5°	4.5	3.5	4.0	5.0	5.5	5.0	4.0	3.5	4.5	5.0	4.5
140°	5.0	4.0	4.0	5.0	6.0	5.0	4.0	4.0	5.0	5.0	5.0
142.5°	5.5	4.5	4.5	5.5	6.0	5.5	4.5	4.5	5.5	5.5	5.5
145°	6.0	5.5	5.0	5.5	6.5	5.5	5.0	5.5	6.0	5.5	6.0
147.5°	6.0	5.5	5.5	6.0	7.1	6.0	5.5	5.5	6.0	6.0	6.5
150°	6.5	6.5	6.0	6.5	7.6	6.5	6.0	6.5	6.5	6.5	7.1
152.5°	7.1	7.1	7.1	7.6	8.1	7.6	7.1	7.1	7.1	7.1	7.6
155°	8.1	8.1	8.1	8.5	9.0	8.5	8.1	8.1	8.1	7.6	8.5
157.5°	9.0	9.5	9.5	10.0	10.5	10.0	9.5	9.5	9.0	9.0	9.5
160°	11.0	11.0	11.6	12.1	12.6	12.1	11.6	11.0	11.0	10.5	11.0
162.5°	12.1	12.1	13.1	13.6	14.5	13.6	13.1	12.1	12.1	12.1	12.1
165°	13.6	13.6	14.5	15.5	16.6	15.5	14.5	13.6	13.6	13.1	13.1
167.5°	14.5	14.5	15.5	17.1	18.1	17.1	15.5	14.5	14.5	14.0	14.0
170°	15.0	15.5	16.6	18.1	19.1	18.1	16.6	15.5	15.0	15.0	14.5
172.5°	16.6	16.6	18.1	19.5	20.6	19.5	18.1	16.6	16.6	16.1	16.1
175°	17.6	18.1	19.1	20.6	21.6	20.6	19.1	18.1	17.6	17.1	17.1
177.5°	17.6	18.6	19.5	21.1	22.1	21.1	19.5	18.6	17.6	17.1	17.1
180°	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	26779.4	26779.4	26779.4	26779.4	26779.4	26779.4
2.5°	26001.6	25984.5	26001.6	26183.3	26419.8	26763.8
5°	25397.5	25303.1	25397.5	25598.8	26033.2	26688.0
7.5°	24693.9	24639.2	24693.9	25030.9	25579.8	26506.8
10°	23953.3	23829.2	23953.3	24333.9	24981.2	26230.1
12.5°	23040.3	22876.2	23040.3	23433.6	24250.0	25788.6
15°	21879.4	21735.3	21879.4	22315.8	23262.8	25135.9
17.5°	20633.5	20503.0	20633.5	21012.7	22055.7	24215.9
20°	19068.8	18966.3	19068.8	19605.1	20628.5	23030.3
22.5°	17427.3	17331.4	17427.3	17903.8	18968.9	21543.9
25°	15496.0	15443.7	15496.0	16028.3	16991.4	19805.5
27.5°	13409.1	13320.2	13409.1	13965.9	14949.6	17760.7
30°	11276.9	11129.8	11276.9	11775.0	12655.8	15489.5
32.5°	9191.5	9085.5	9191.5	9546.5	10466.9	12946.5
35°	7175.8	7069.8	7175.8	7496.6	8400.5	10600.5
37.5°	5591.4	5404.2	5591.4	5797.3	6531.0	8319.2
40°	4240.7	4210.5	4240.7	4499.8	4969.4	6472.3
42.5°	3452.3	3370.5	3452.3	3563.8	3915.3	4904.0
45°	2832.7	2800.5	2832.7	2917.0	3153.0	3833.4
47.5°	2435.9	2450.1	2435.9	2490.2	2666.9	3121.8
50°	2140.1	2148.7	2140.1	2165.8	2283.8	2622.2
52.5°	1922.3	1914.7	1922.3	1924.7	1998.1	2252.7
55°	1729.4	1719.9	1729.4	1723.9	1778.2	1941.3
57.5°	1560.7	1567.8	1560.7	1553.2	1582.3	1704.8
60°	1410.1	1416.6	1410.1	1404.5	1423.6	1495.5
62.5°	1283.0	1287.0	1283.0	1282.5	1279.0	1334.3
65°	1169.5	1174.0	1169.5	1163.5	1157.9	1183.6
67.5°	1061.1	1061.1	1061.1	1050.5	1041.9	1067.1
70°	959.1	958.6	959.1	942.0	935.5	943.0
72.5°	836.6	848.6	836.6	824.1	823.6	824.5
75°	717.6	731.6	717.6	709.5	700.5	708.0
77.5°	597.0	618.7	597.0	590.6	586.0	581.0
80°	473.6	497.1	473.6	462.5	456.0	464.5
82.5°	350.0	367.6	350.0	336.4	335.9	340.0
85°	208.3	236.5	208.3	196.4	200.9	196.4
87.5°	66.8	85.4	66.8	63.8	70.3	68.8
90°	0.5	0.5	0.5	0.5	0.5	0.5
92.5°	0.5	0.5	0.5	0.5	0.5	0.5
95°	0.5	0.5	0.5	0.5	0.5	1.0
97.5°	0.5	1.0	0.5	0.5	0.5	1.0
100°	0.5	1.0	0.5	0.5	1.0	1.0
102.5°	0.5	1.0	0.5	0.5	1.0	1.0
105°	0.5	1.0	0.5	0.5	1.0	1.0
107.5°	0.5	1.0	0.5	1.0	1.0	1.0
110°	0.5	1.0	0.5	1.0	1.0	1.0



TEST NUMBER: P1432946
 CATALOG NUMBER: EHBR1-30-UNV-TASM-L850

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	0.5	1.0	0.5	1.0	1.0	1.0
115°	0.5	1.0	0.5	1.0	1.0	1.5
117.5°	0.5	1.0	0.5	1.0	1.5	1.5
120°	0.5	1.0	0.5	1.0	1.5	1.5
122.5°	1.0	1.0	1.0	1.5	2.0	2.0
125°	1.0	1.5	1.0	2.0	2.6	2.0
127.5°	1.0	1.5	1.0	2.0	2.6	2.6
130°	1.5	1.5	1.5	2.6	3.0	3.0
132.5°	2.0	2.0	2.0	3.5	4.0	3.5
135°	2.6	2.0	2.6	3.5	4.5	4.0
137.5°	3.0	2.6	3.0	4.5	5.0	4.5
140°	4.0	3.5	4.0	5.0	5.0	5.0
142.5°	4.5	4.5	4.5	5.5	5.5	5.5
145°	5.5	5.5	5.5	6.0	5.5	6.0
147.5°	6.5	6.5	6.5	6.5	6.0	6.0
150°	7.6	7.6	7.6	7.1	6.5	6.5
152.5°	8.1	8.5	8.1	7.6	7.1	7.1
155°	9.0	9.5	9.0	8.5	7.6	8.1
157.5°	10.0	11.0	10.0	9.5	9.0	9.0
160°	11.6	12.1	11.6	11.0	10.5	11.0
162.5°	12.6	13.1	12.6	12.1	12.1	12.1
165°	13.6	14.0	13.6	13.1	13.1	13.6
167.5°	14.0	14.0	14.0	14.0	14.0	14.5
170°	14.5	15.0	14.5	14.5	15.0	15.0
172.5°	15.5	16.1	15.5	16.1	16.1	16.6
175°	16.6	17.1	16.6	17.1	17.1	17.6
177.5°	17.1	17.6	17.1	17.1	17.1	17.6
180°	18.6	18.6	18.6	18.6	18.6	18.6



TEST NUMBER: P1432946
 CATALOG NUMBER: EHBR1-30-UNV-TASM-L850

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	18.45	19.65	18.81	19.97	20.29	17.77	18.97	18.13	19.29	19.60
	3H	20.09	21.16	20.47	21.49	21.86	19.72	20.79	20.10	21.12	21.49
	4H	20.79	21.79	21.20	22.15	22.53	20.58	21.58	20.98	21.93	22.32
	6H	21.36	22.28	21.78	22.66	23.05	21.33	22.25	21.74	22.62	23.02
	8H	21.57	22.44	22.00	22.83	23.24	21.61	22.48	22.05	22.88	23.29
	12H	21.69	22.52	22.12	22.91	23.34	21.81	22.64	22.24	23.03	23.46
4H	2H	18.91	19.91	19.31	20.26	20.65	18.40	19.40	18.80	19.75	20.14
	3H	20.82	21.64	21.23	22.05	22.46	20.57	21.40	20.99	21.80	22.21
	4H	21.68	22.42	22.11	22.84	23.29	21.57	22.31	22.01	22.73	23.18
	6H	22.40	23.04	22.87	23.49	23.96	22.46	23.10	22.93	23.55	24.02
	8H	22.66	23.25	23.13	23.70	24.18	22.81	23.41	23.28	23.86	24.33
	12H	22.83	23.35	23.32	23.84	24.31	23.06	23.58	23.55	24.07	24.55
8H	4H	21.99	22.58	22.46	23.03	23.50	21.91	22.51	22.38	22.95	23.43
	6H	22.86	23.35	23.37	23.85	24.33	22.96	23.45	23.47	23.95	24.43
	8H	23.21	23.64	23.74	24.16	24.66	23.41	23.84	23.94	24.36	24.86
	12H	23.47	23.85	23.99	24.35	24.92	23.77	24.15	24.29	24.64	25.22
12H	4H	22.01	22.54	22.50	23.02	23.50	21.94	22.46	22.43	22.95	23.43
	6H	22.93	23.36	23.46	23.88	24.38	23.04	23.47	23.56	23.99	24.48
	8H	23.35	23.73	23.87	24.22	24.80	23.55	23.93	24.07	24.43	25.00

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-4

Test Date: 07/31/2025

Luminaire Tested: EHBR-60-L850-N

Data in this report applies to families of products including EHBR-60-L850-N

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-4
 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-L850-N**
 Description: Elevate Round Highbay at, 60000 lumens, 5000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K): 4875
 CIE u': 0.2124
 CIE v': 0.4871
 Duv: 0.0005
 CIE x: 0.3488
 CIE y: 0.3555
 CIE z: 0.2957
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 573
 Purity: 11.33556
 Rf: 80
 Rg: 102.3

CRI (Ra):	82.3		
R1:	85.0	R9:	43.9
R2:	83.1	R10:	57.4
R3:	78.8	R11:	83.1
R4:	84.0	R12:	51.0
R5:	83.0	R13:	83.4
R6:	76.3	R14:	87.4
R7:	86.8	R15:	83.4
R8:	81.7		



Test Conditions

Stabilization Time: 39M
 Operation Time: 1H 39M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-4

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: SP1-2506-472-4

CIE 1931 Chromaticity Diagram



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

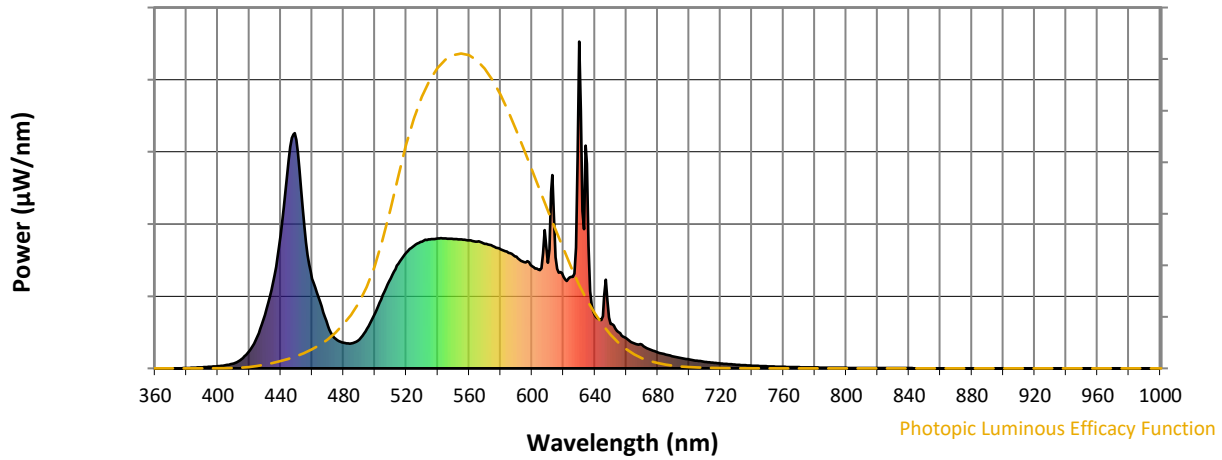


CCT = 4875K
 CIE x = 0.3488
 CIE y = 0.3555
 Duv = 0.0005

Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-4

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	89	NR	620	280	NR	750	6	NR	880	0	NR
365	0	NR	495	121	NR	625	280	NR	755	5	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	224	NR	635	626	NR	765	4	NR	895	0	NR
380	1	NR	510	275	NR	640	163	NR	770	4	NR	900	0	NR
385	2	NR	515	321	NR	645	160	NR	775	3	NR	905	0	NR
390	3	NR	520	354	NR	650	136	NR	780	3	NR	910	0	NR
395	5	NR	525	375	NR	655	111	NR	785	2	NR	915	0	NR
400	7	NR	530	388	NR	660	93	NR	790	2	NR	920	0	NR
405	10	NR	535	395	NR	665	76	NR	795	2	NR	925	0	NR
410	15	NR	540	397	NR	670	72	NR	800	2	NR	930	0	NR
415	28	NR	545	398	NR	675	57	NR	805	1	NR	935	0	NR
420	53	NR	550	396	NR	680	49	NR	810	1	NR	940	0	NR
425	97	NR	555	395	NR	685	42	NR	815	1	NR	945	0	NR
430	163	NR	560	392	NR	690	37	NR	820	1	NR	950	0	NR
435	261	NR	565	388	NR	695	32	NR	825	1	NR	955	0	NR
440	409	NR	570	381	NR	700	27	NR	830	1	NR	960	0	NR
445	637	NR	575	374	NR	705	23	NR	835	1	NR	965	0	NR
450	699	NR	580	365	NR	710	20	NR	840	1	NR	970	0	NR
455	436	NR	585	354	NR	715	17	NR	845	0	NR	975	0	NR
460	274	NR	590	342	NR	720	15	NR	850	0	NR	980	0	NR
465	205	NR	595	325	NR	725	13	NR	855	0	NR	985	0	NR
470	130	NR	600	313	NR	730	11	NR	860	0	NR	990	0	NR
475	90	NR	605	301	NR	735	10	NR	865	0	NR	995	0	NR
480	78	NR	610	323	NR	740	8	NR	870	0	NR	1000	0	NR
485	77	NR	615	340	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-4

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.82

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	89	NR	620	280	NR	750	6	NR	880	0	NR
365	0	NR	495	121	NR	625	280	NR	755	5	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	224	NR	635	626	NR	765	4	NR	895	0	NR
380	1	NR	510	275	NR	640	163	NR	770	4	NR	900	0	NR
385	2	NR	515	321	NR	645	160	NR	775	3	NR	905	0	NR
390	3	NR	520	354	NR	650	136	NR	780	3	NR	910	0	NR
395	5	NR	525	375	NR	655	111	NR	785	2	NR	915	0	NR
400	7	NR	530	388	NR	660	93	NR	790	2	NR	920	0	NR
405	10	NR	535	395	NR	665	76	NR	795	2	NR	925	0	NR
410	15	NR	540	397	NR	670	72	NR	800	2	NR	930	0	NR
415	28	NR	545	398	NR	675	57	NR	805	1	NR	935	0	NR
420	53	NR	550	396	NR	680	49	NR	810	1	NR	940	0	NR
425	97	NR	555	395	NR	685	42	NR	815	1	NR	945	0	NR
430	163	NR	560	392	NR	690	37	NR	820	1	NR	950	0	NR
435	261	NR	565	388	NR	695	32	NR	825	1	NR	955	0	NR
440	409	NR	570	381	NR	700	27	NR	830	1	NR	960	0	NR
445	637	NR	575	374	NR	705	23	NR	835	1	NR	965	0	NR
450	699	NR	580	365	NR	710	20	NR	840	1	NR	970	0	NR
455	436	NR	585	354	NR	715	17	NR	845	0	NR	975	0	NR
460	274	NR	590	342	NR	720	15	NR	850	0	NR	980	0	NR
465	205	NR	595	325	NR	725	13	NR	855	0	NR	985	0	NR
470	130	NR	600	313	NR	730	11	NR	860	0	NR	990	0	NR
475	90	NR	605	301	NR	735	10	NR	865	0	NR	995	0	NR
480	78	NR	610	323	NR	740	8	NR	870	0	NR	1000	0	NR
485	77	NR	615	340	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-4

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.71

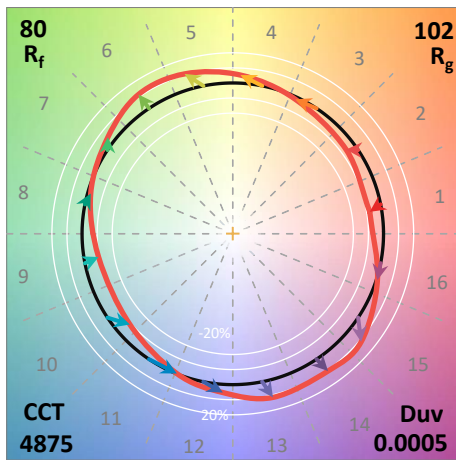
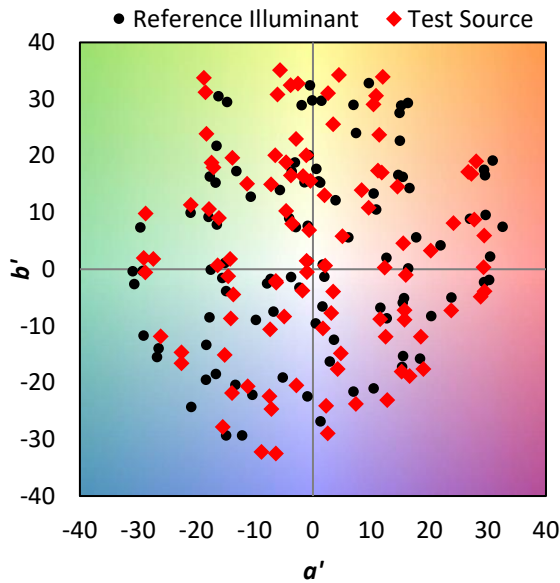
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	89	NR	620	280	NR	750	6	NR	880	0	NR
365	0	NR	495	121	NR	625	280	NR	755	5	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	224	NR	635	626	NR	765	4	NR	895	0	NR
380	1	NR	510	275	NR	640	163	NR	770	4	NR	900	0	NR
385	2	NR	515	321	NR	645	160	NR	775	3	NR	905	0	NR
390	3	NR	520	354	NR	650	136	NR	780	3	NR	910	0	NR
395	5	NR	525	375	NR	655	111	NR	785	2	NR	915	0	NR
400	7	NR	530	388	NR	660	93	NR	790	2	NR	920	0	NR
405	10	NR	535	395	NR	665	76	NR	795	2	NR	925	0	NR
410	15	NR	540	397	NR	670	72	NR	800	2	NR	930	0	NR
415	28	NR	545	398	NR	675	57	NR	805	1	NR	935	0	NR
420	53	NR	550	396	NR	680	49	NR	810	1	NR	940	0	NR
425	97	NR	555	395	NR	685	42	NR	815	1	NR	945	0	NR
430	163	NR	560	392	NR	690	37	NR	820	1	NR	950	0	NR
435	261	NR	565	388	NR	695	32	NR	825	1	NR	955	0	NR
440	409	NR	570	381	NR	700	27	NR	830	1	NR	960	0	NR
445	637	NR	575	374	NR	705	23	NR	835	1	NR	965	0	NR
450	699	NR	580	365	NR	710	20	NR	840	1	NR	970	0	NR
455	436	NR	585	354	NR	715	17	NR	845	0	NR	975	0	NR
460	274	NR	590	342	NR	720	15	NR	850	0	NR	980	0	NR
465	205	NR	595	325	NR	725	13	NR	855	0	NR	985	0	NR
470	130	NR	600	313	NR	730	11	NR	860	0	NR	990	0	NR
475	90	NR	605	301	NR	735	10	NR	865	0	NR	995	0	NR
480	78	NR	610	323	NR	740	8	NR	870	0	NR	1000	0	NR
485	77	NR	615	340	NR	745	7	NR	875	0	NR			

Summary

$R_f = 80$
 $R_g = 102.3$
 $CIE R_a = 82.3$
 $R_9 = 43.9$



Color Vector Graphics

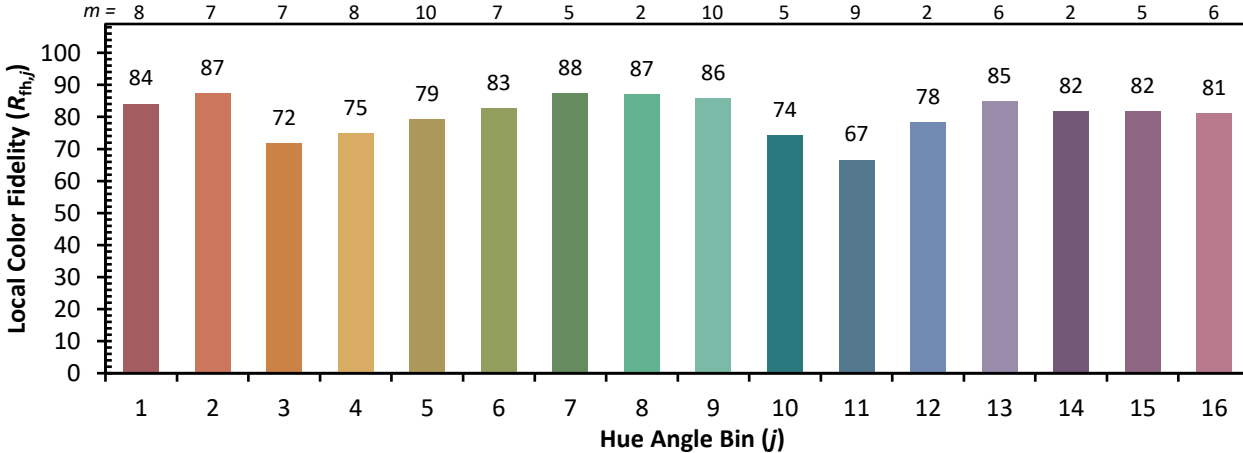


Individual Sample Fidelity Index ($R_{f,i}$)

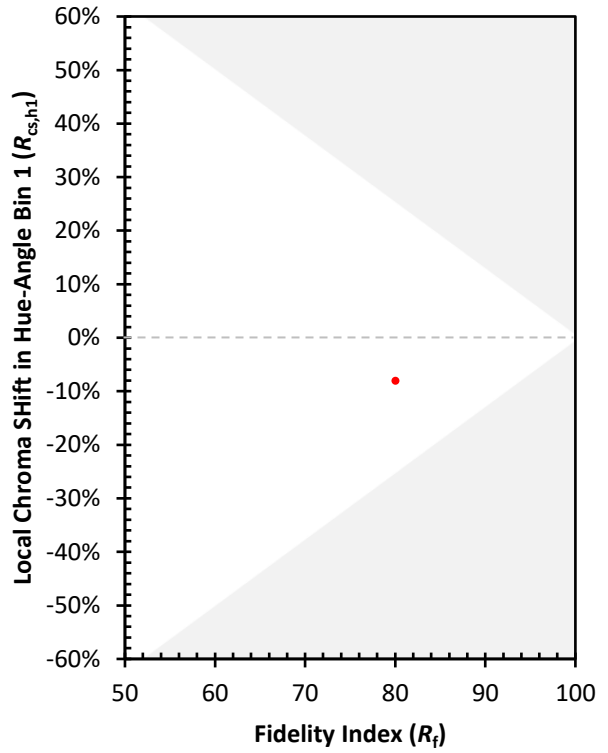
CES01 = 85	CES26 = 67	CES51 = 92	CES76 = 54
CES02 = 60	CES27 = 88	CES52 = 91	CES77 = 71
CES03 = 31	CES28 = 81	CES53 = 82	CES78 = 55
CES04 = 69	CES29 = 66	CES54 = 92	CES79 = 81
CES05 = 47	CES30 = 80	CES55 = 90	CES80 = 75
CES06 = 50	CES31 = 69	CES56 = 81	CES81 = 79
CES07 = 40	CES32 = 61	CES57 = 80	CES82 = 90
CES08 = 39	CES33 = 76	CES58 = 81	CES83 = 87
CES09 = 29	CES34 = 68	CES59 = 93	CES84 = 87
CES10 = 73	CES35 = 82	CES60 = 94	CES85 = 82
CES11 = 56	CES36 = 95	CES61 = 91	CES86 = 83
CES12 = 62	CES37 = 75	CES62 = 89	CES87 = 78
CES13 = 42	CES38 = 87	CES63 = 80	CES88 = 85
CES14 = 74	CES39 = 94	CES64 = 79	CES89 = 81
CES15 = 71	CES40 = 87	CES65 = 75	CES90 = 86
CES16 = 46	CES41 = 91	CES66 = 72	CES91 = 80
CES17 = 48	CES42 = 71	CES67 = 69	CES92 = 77
CES18 = 56	CES43 = 72	CES68 = 75	CES93 = 86
CES19 = 70	CES44 = 99	CES69 = 80	CES94 = 71
CES20 = 65	CES45 = 81	CES70 = 66	CES95 = 79
CES21 = 85	CES46 = 83	CES71 = 59	CES96 = 86
CES22 = 77	CES47 = 83	CES72 = 87	CES97 = 85
CES23 = 91	CES48 = 83	CES73 = 56	CES98 = 82
CES24 = 90	CES49 = 82	CES74 = 95	CES99 = 84
CES25 = 71	CES50 = 91	CES75 = 58	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)