

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: P1431907

Luminaire Tested: EHBR1-60-UNV-TASM-L840

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1431907
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: EHBR1-60-UNV-TASM-L840
Description: Elevate Round Highbay at, 60000 lumens, 4000K 80CRI LEDs with TASM lens
Light Source: -
Ballast/Driver: -

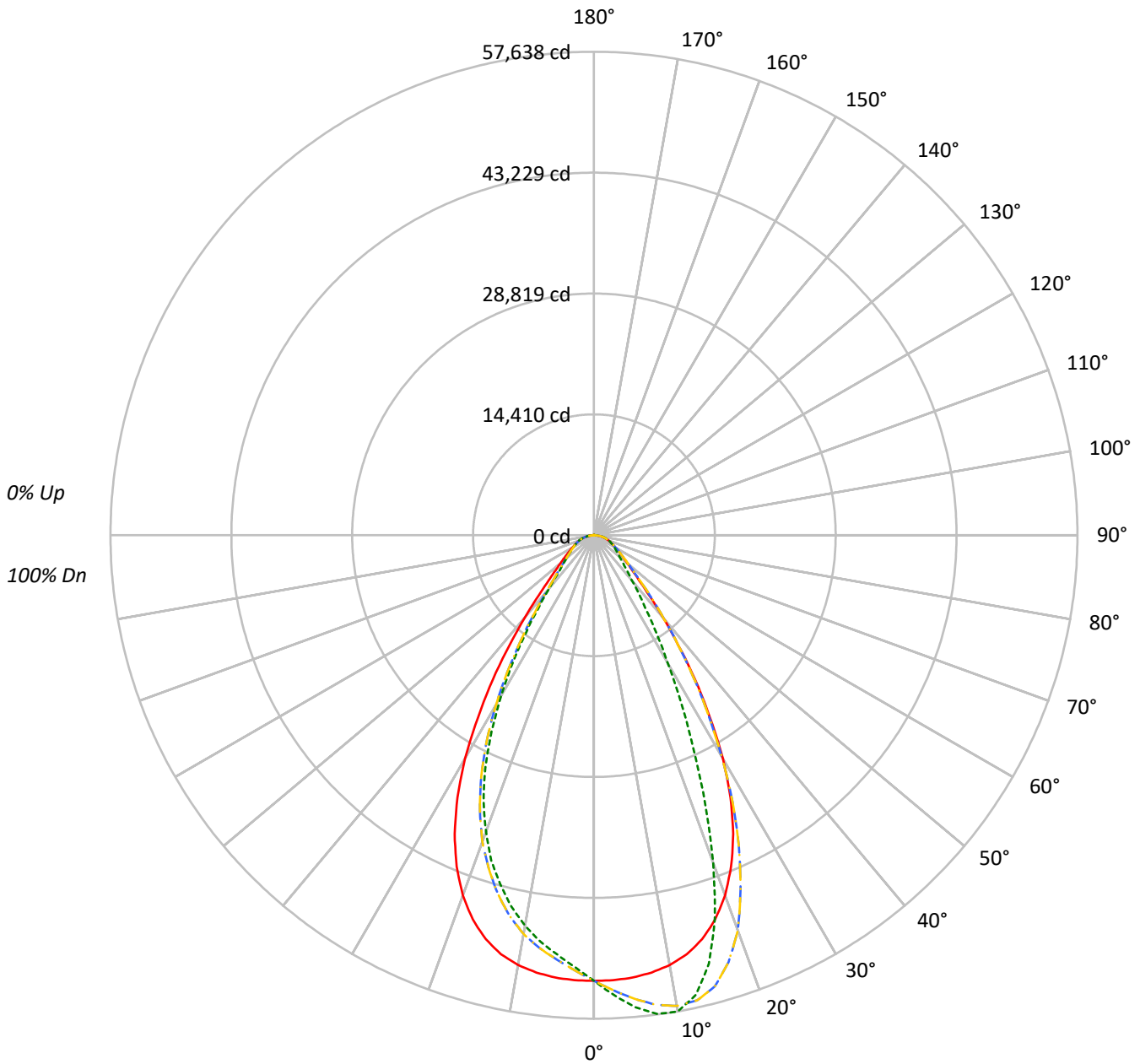
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 59394.1 lumens
Efficiency: N/A
Efficacy: 179.8 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): 330.4
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

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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°	249447	249447	249447	249447
5°	249545	266219	249545	236595
10°	248099	274849	248099	225391
15°	242397	257143	242397	209603
20°	228292	207640	228292	188008
25°	203557	144933	203557	158729
30°	166603	95044	166603	119711
35°	120542	62093	120542	80394
40°	78701	43219	78701	51199
45°	50499	33855	50499	36892
50°	38000	29151	38000	31138
55°	31527	26985	31527	27930
60°	27859	26231	27859	26390
65°	26087	25987	26087	25876
70°	25684	26449	25684	26107
75°	25482	27146	25482	26331
80°	24915	28526	24915	26668
85°	20987	26510	20987	25276

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 70999 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5050.7	8.5
10°-20°	13740.8	23.1
20°-30°	16115.1	27.1
30°-40°	11207.0	18.9
40°-50°	5569.4	9.4
50°-60°	3331.1	5.6
60°-70°	2344.5	3.9
70°-80°	1510.3	2.5
80°-90°	479.7	0.8
90°-100°	2.8	0.0
100°-110°	3.3	0.0
110°-120°	3.4	0.0
120°-130°	4.3	0.0
130°-140°	5.8	0.0
140°-150°	7.0	0.0
150°-160°	7.8	0.0
160°-170°	7.6	0.0
170°-180°	3.3	0.0
0°-30°	34906.6	58.8
0°-40°	46113.6	77.6
0°-60°	55014.1	92.6
0°-90°	59348.6	99.9
90°-120°	9.6	0.0
90°-150°	26.7	0.0
90°-180°	45.0	0.1
0°-180°	59394.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	53118	53118	53118	53118	53118	
5°	52937	56474	52937	50190	52937	5024
15°	49858	52891	49858	43113	49858	13934
25°	39285	27971	39285	30633	39285	17785
35°	21026	10831	21026	14023	21026	13126
45°	7604	5098	7604	5555	7604	6222
55°	3851	3296	3851	3411	3851	3521
65°	2348	2339	2348	2329	2348	2358
75°	1404	1496	1404	1451	1404	1474
85°	390	492	390	469	390	433
90°	1	8	1	1	1	19
95°	2	8	2	1	2	1
105°	2	9	2	2	2	2
115°	3	9	3	2	3	3
125°	4	10	4	3	4	4
135°	8	11	8	4	8	6
145°	12	13	12	11	12	7
155°	16	18	16	19	16	7
165°	27	33	27	28	27	7
175°	35	43	35	34	35	3
180°	37	37	37	37	37	



TEST NUMBER: P1431907
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	53118.0	53118.0	53118.0	53118.0	53118.0	53118.0	53118.0	53118.0	53118.0	53118.0	53118.0
2.5°	53087.1	53773.4	54329.2	54695.7	54877.0	54695.7	54329.2	53773.4	53087.1	52404.8	51935.7
5°	52936.7	54311.2	55475.6	56237.6	56473.7	56237.6	55475.6	54311.2	52936.7	51637.9	50776.3
7.5°	52577.1	54718.6	56448.8	57338.2	57555.4	57338.2	56448.8	54718.6	52577.1	50738.4	49649.8
10°	52028.3	54975.6	56974.7	57612.1	57638.0	57612.1	56974.7	54975.6	52028.3	49551.2	48267.3
12.5°	51152.8	54884.0	56798.4	56589.2	56114.1	56589.2	56798.4	54884.0	51152.8	48100.9	46481.3
15°	49857.9	54341.1	55681.8	53979.6	52890.9	53979.6	55681.8	54341.1	49857.9	46142.7	44264.2
17.5°	48033.2	53325.2	53351.1	49983.4	47929.6	49983.4	53351.1	53325.2	48033.2	43748.2	41679.4
20°	45681.5	51695.6	50141.8	43982.3	41548.9	43982.3	50141.8	51695.6	45681.5	40917.5	38887.5
22.5°	42733.2	49498.4	45672.6	37945.3	34625.4	37945.3	45672.6	49498.4	42733.2	37625.5	35512.9
25°	39284.9	46806.1	40864.7	31367.4	27970.9	31367.4	40864.7	46806.1	39284.9	33703.1	31792.7
27.5°	35229.0	43393.6	35745.0	25632.2	22498.6	25632.2	35745.0	43393.6	35229.0	29653.2	27702.0
30°	30723.9	39019.0	30417.2	20412.9	17527.4	20412.9	30417.2	39019.0	30723.9	25103.3	23356.2
32.5°	25680.0	34731.0	25300.5	16356.0	13911.7	16356.0	25300.5	34731.0	25680.0	20761.5	18935.8
35°	21026.5	29366.3	20686.8	12851.9	10831.0	12851.9	20686.8	29366.3	21026.5	16662.8	14869.9
37.5°	16501.4	24297.5	16490.5	10348.9	8785.1	10348.9	16490.5	24297.5	16501.4	12954.5	11499.3
40°	12838.0	18998.5	12920.7	8261.2	7050.0	8261.2	12920.7	18998.5	12838.0	9856.8	8925.5
42.5°	9727.4	14527.3	10155.7	6780.1	5988.2	6780.1	10155.7	14527.3	9727.4	7766.1	7068.9
45°	7603.8	10690.5	7930.5	5720.3	5097.7	5720.3	7930.5	10690.5	7603.8	6254.2	5786.0
47.5°	6192.4	8262.2	6427.5	4906.5	4470.2	4906.5	6427.5	8262.2	6192.4	5290.0	4939.4
50°	5201.3	6339.8	5336.8	4283.0	3990.1	4283.0	5336.8	6339.8	5201.3	4530.0	4295.9
52.5°	4468.2	5170.5	4544.9	3816.8	3619.6	3816.8	4544.9	5170.5	4468.2	3963.3	3817.8
55°	3850.7	4346.7	3952.3	3432.4	3295.9	3432.4	3952.3	4346.7	3850.7	3527.0	3419.4
57.5°	3381.6	3687.4	3432.4	3104.7	3014.0	3104.7	3432.4	3687.4	3381.6	3138.5	3080.8
60°	2966.2	3193.3	3029.0	2818.8	2792.9	2818.8	3029.0	3193.3	2966.2	2823.8	2785.9
62.5°	2646.5	2789.9	2678.4	2561.8	2538.9	2561.8	2678.4	2789.9	2646.5	2536.9	2543.9
65°	2347.7	2481.1	2393.5	2330.7	2338.7	2330.7	2393.5	2481.1	2347.7	2296.9	2307.8
67.5°	2116.6	2186.3	2148.5	2112.6	2121.6	2112.6	2148.5	2186.3	2116.6	2066.8	2083.7
70°	1870.6	1945.3	1906.4	1911.4	1926.3	1911.4	1906.4	1945.3	1870.6	1855.6	1868.6
72.5°	1635.5	1693.3	1680.3	1692.3	1708.2	1692.3	1680.3	1693.3	1635.5	1633.5	1634.5
75°	1404.4	1448.2	1454.2	1471.2	1496.1	1471.2	1454.2	1448.2	1404.4	1389.5	1407.4
77.5°	1152.4	1202.2	1221.1	1244.1	1280.9	1244.1	1221.1	1202.2	1152.4	1162.4	1171.3
80°	921.3	944.2	986.1	1003.0	1054.8	1003.0	986.1	944.2	921.3	904.4	917.4
82.5°	674.3	695.2	731.1	763.0	792.9	763.0	731.1	695.2	674.3	666.4	667.3
85°	389.5	421.3	445.2	483.1	492.0	483.1	445.2	421.3	389.5	398.4	389.5
87.5°	136.5	146.4	167.3	182.3	183.3	182.3	167.3	146.4	136.5	139.4	126.5
90°	1.0	2.0	3.0	6.0	8.0	6.0	3.0	2.0	1.0	1.0	1.0
92.5°	1.0	2.0	3.0	6.0	8.0	6.0	3.0	2.0	1.0	1.0	1.0
95°	2.0	2.0	3.0	6.0	8.0	6.0	3.0	2.0	2.0	1.0	1.0
97.5°	2.0	2.0	3.0	6.0	8.0	6.0	3.0	2.0	2.0	1.0	1.0
100°	2.0	2.0	3.0	6.0	8.0	6.0	3.0	2.0	2.0	2.0	1.0
102.5°	2.0	3.0	4.0	7.0	8.0	7.0	4.0	3.0	2.0	2.0	1.0
105°	2.0	3.0	4.0	7.0	9.0	7.0	4.0	3.0	2.0	2.0	1.0
107.5°	2.0	3.0	4.0	7.0	9.0	7.0	4.0	3.0	2.0	2.0	2.0
110°	2.0	3.0	4.0	7.0	9.0	7.0	4.0	3.0	2.0	2.0	2.0



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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°	2.0	3.0	4.0	7.0	9.0	7.0	4.0	3.0	2.0	2.0	2.0
115°	3.0	3.0	4.0	7.0	9.0	7.0	4.0	3.0	3.0	2.0	2.0
117.5°	3.0	3.0	4.0	7.0	9.0	7.0	4.0	3.0	3.0	3.0	2.0
120°	3.0	3.0	5.0	7.0	9.0	7.0	5.0	3.0	3.0	3.0	2.0
122.5°	4.0	4.0	5.0	8.0	9.0	8.0	5.0	4.0	4.0	4.0	3.0
125°	4.0	4.0	6.0	8.0	10.0	8.0	6.0	4.0	4.0	5.0	4.0
127.5°	5.0	5.0	6.0	8.0	10.0	8.0	6.0	5.0	5.0	5.0	4.0
130°	6.0	5.0	6.0	9.0	10.0	9.0	6.0	5.0	6.0	6.0	5.0
132.5°	7.0	6.0	7.0	10.0	11.0	10.0	7.0	6.0	7.0	8.0	7.0
135°	8.0	6.0	8.0	9.0	11.0	9.0	8.0	6.0	8.0	9.0	7.0
137.5°	9.0	7.0	8.0	10.0	11.0	10.0	8.0	7.0	9.0	10.0	9.0
140°	10.0	8.0	8.0	10.0	12.0	10.0	8.0	8.0	10.0	10.0	10.0
142.5°	11.0	9.0	9.0	11.0	12.0	11.0	9.0	9.0	11.0	11.0	11.0
145°	12.0	11.0	10.0	11.0	12.9	11.0	10.0	11.0	12.0	11.0	12.0
147.5°	12.0	11.0	11.0	12.0	13.9	12.0	11.0	11.0	12.0	12.0	12.9
150°	12.9	12.9	12.0	12.9	14.9	12.9	12.0	12.9	12.9	12.9	13.9
152.5°	13.9	13.9	13.9	14.9	15.9	14.9	13.9	13.9	13.9	13.9	14.9
155°	15.9	15.9	15.9	16.9	17.9	16.9	15.9	15.9	15.9	14.9	16.9
157.5°	17.9	18.9	18.9	19.9	20.9	19.9	18.9	18.9	17.9	17.9	18.9
160°	21.9	21.9	22.9	23.9	24.9	23.9	22.9	21.9	21.9	20.9	21.9
162.5°	23.9	23.9	25.9	26.9	28.9	26.9	25.9	23.9	23.9	23.9	23.9
165°	26.9	26.9	28.9	30.9	32.9	30.9	28.9	26.9	26.9	25.9	25.9
167.5°	28.9	28.9	30.9	33.9	35.9	33.9	30.9	28.9	28.9	27.9	27.9
170°	29.9	30.9	32.9	35.9	37.8	35.9	32.9	30.9	29.9	29.9	28.9
172.5°	32.9	32.9	35.9	38.8	40.8	38.8	35.9	32.9	32.9	31.9	31.9
175°	34.9	35.9	37.8	40.8	42.8	40.8	37.8	35.9	34.9	33.9	33.9
177.5°	34.9	36.9	38.8	41.8	43.8	41.8	38.8	36.9	34.9	33.9	33.9
180°	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	53118.0	53118.0	53118.0	53118.0	53118.0	53118.0
2.5°	51575.1	51541.2	51575.1	51935.7	52404.8	53087.1
5°	50376.9	50189.6	50376.9	50776.3	51637.9	52936.7
7.5°	48981.4	48872.8	48981.4	49649.8	50738.4	52577.1
10°	47512.3	47266.2	47512.3	48267.3	49551.2	52028.3
12.5°	45701.4	45375.7	45701.4	46481.3	48100.9	51152.8
15°	43398.6	43112.7	43398.6	44264.2	46142.7	49857.9
17.5°	40927.4	40668.4	40927.4	41679.4	43748.2	48033.2
20°	37823.7	37620.5	37823.7	38887.5	40917.5	45681.5
22.5°	34567.7	34377.4	34567.7	35512.9	37625.5	42733.2
25°	30736.9	30633.3	30736.9	31792.7	33703.1	39284.9
27.5°	26597.3	26421.0	26597.3	27702.0	29653.2	35229.0
30°	22368.1	22076.3	22368.1	23356.2	25103.3	30723.9
32.5°	18231.6	18021.4	18231.6	18935.8	20761.5	25680.0
35°	14233.5	14023.3	14233.5	14869.9	16662.8	21026.5
37.5°	11090.9	10719.4	11090.9	11499.3	12954.5	16501.4
40°	8411.6	8351.8	8411.6	8925.5	9856.8	12838.0
42.5°	6847.8	6685.4	6847.8	7068.9	7766.1	9727.4
45°	5618.7	5554.9	5618.7	5786.0	6254.2	7603.8
47.5°	4831.8	4859.7	4831.8	4939.4	5290.0	6192.4
50°	4245.1	4262.1	4245.1	4295.9	4530.0	5201.3
52.5°	3812.9	3797.9	3812.9	3817.8	3963.3	4468.2
55°	3430.4	3411.4	3430.4	3419.4	3527.0	3850.7
57.5°	3095.7	3109.6	3095.7	3080.8	3138.5	3381.6
60°	2796.9	2809.8	2796.9	2785.9	2823.8	2966.2
62.5°	2544.9	2552.9	2544.9	2543.9	2536.9	2646.5
65°	2319.8	2328.7	2319.8	2307.8	2296.9	2347.7
67.5°	2104.6	2104.6	2104.6	2083.7	2066.8	2116.6
70°	1902.4	1901.4	1902.4	1868.6	1855.6	1870.6
72.5°	1659.4	1683.3	1659.4	1634.5	1633.5	1635.5
75°	1423.3	1451.2	1423.3	1407.4	1389.5	1404.4
77.5°	1184.3	1227.1	1184.3	1171.3	1162.4	1152.4
80°	939.3	986.1	939.3	917.4	904.4	921.3
82.5°	694.2	729.1	694.2	667.3	666.4	674.3
85°	413.4	469.1	413.4	389.5	398.4	389.5
87.5°	132.5	169.3	132.5	126.5	139.4	136.5
90°	1.0	1.0	1.0	1.0	1.0	1.0
92.5°	1.0	1.0	1.0	1.0	1.0	1.0
95°	1.0	1.0	1.0	1.0	1.0	2.0
97.5°	1.0	2.0	1.0	1.0	1.0	2.0
100°	1.0	2.0	1.0	1.0	2.0	2.0
102.5°	1.0	2.0	1.0	1.0	2.0	2.0
105°	1.0	2.0	1.0	1.0	2.0	2.0
107.5°	1.0	2.0	1.0	2.0	2.0	2.0
110°	1.0	2.0	1.0	2.0	2.0	2.0



TEST NUMBER: P1431907
 CATALOG NUMBER: EHBR1-60-UNV-TASM-L840

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1.0	2.0	1.0	2.0	2.0	2.0
115°	1.0	2.0	1.0	2.0	2.0	3.0
117.5°	1.0	2.0	1.0	2.0	3.0	3.0
120°	1.0	2.0	1.0	2.0	3.0	3.0
122.5°	2.0	2.0	2.0	3.0	4.0	4.0
125°	2.0	3.0	2.0	4.0	5.0	4.0
127.5°	2.0	3.0	2.0	4.0	5.0	5.0
130°	3.0	3.0	3.0	5.0	6.0	6.0
132.5°	4.0	4.0	4.0	7.0	8.0	7.0
135°	5.0	4.0	5.0	7.0	9.0	8.0
137.5°	6.0	5.0	6.0	9.0	10.0	9.0
140°	8.0	7.0	8.0	10.0	10.0	10.0
142.5°	9.0	9.0	9.0	11.0	11.0	11.0
145°	11.0	11.0	11.0	12.0	11.0	12.0
147.5°	12.9	12.9	12.9	12.9	12.0	12.0
150°	14.9	14.9	14.9	13.9	12.9	12.9
152.5°	15.9	16.9	15.9	14.9	13.9	13.9
155°	17.9	18.9	17.9	16.9	14.9	15.9
157.5°	19.9	21.9	19.9	18.9	17.9	17.9
160°	22.9	23.9	22.9	21.9	20.9	21.9
162.5°	24.9	25.9	24.9	23.9	23.9	23.9
165°	26.9	27.9	26.9	25.9	25.9	26.9
167.5°	27.9	27.9	27.9	27.9	27.9	28.9
170°	28.9	29.9	28.9	28.9	29.9	29.9
172.5°	30.9	31.9	30.9	31.9	31.9	32.9
175°	32.9	33.9	32.9	33.9	33.9	34.9
177.5°	33.9	34.9	33.9	33.9	33.9	34.9
180°	36.9	36.9	36.9	36.9	36.9	36.9



TEST NUMBER: P1431907
 CATALOG NUMBER: EHBR1-60-UNV-TASM-L840

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	20.83	22.03	21.19	22.35	22.66	20.15	21.35	20.51	21.67	21.98
	3H	22.46	23.54	22.85	23.87	24.24	22.10	23.17	22.48	23.50	23.87
	4H	23.17	24.17	23.58	24.52	24.91	22.95	23.96	23.36	24.31	24.70
	6H	23.74	24.66	24.16	25.04	25.43	23.71	24.63	24.12	25.00	25.40
	8H	23.95	24.82	24.38	25.21	25.62	23.99	24.86	24.43	25.26	25.67
	12H	24.07	24.90	24.50	25.28	25.72	24.19	25.02	24.62	25.41	25.84
4H	2H	21.29	22.29	21.69	22.64	23.03	20.78	21.78	21.18	22.13	22.52
	3H	23.20	24.02	23.61	24.43	24.84	22.95	23.78	23.37	24.18	24.59
	4H	24.06	24.80	24.49	25.22	25.66	23.95	24.69	24.39	25.11	25.56
	6H	24.78	25.42	25.25	25.87	26.34	24.84	25.48	25.31	25.93	26.40
	8H	25.04	25.63	25.51	26.08	26.56	25.19	25.79	25.66	26.23	26.71
	12H	25.21	25.73	25.70	26.22	26.69	25.44	25.96	25.93	26.45	26.93
8H	4H	24.36	24.96	24.84	25.41	25.88	24.29	24.88	24.76	25.33	25.81
	6H	25.24	25.72	25.75	26.22	26.71	25.34	25.83	25.85	26.33	26.81
	8H	25.59	26.02	26.12	26.54	27.04	25.79	26.22	26.32	26.74	27.24
	12H	25.85	26.23	26.37	26.73	27.30	26.15	26.53	26.67	27.02	27.60
12H	4H	24.39	24.92	24.88	25.40	25.88	24.32	24.84	24.81	25.33	25.81
	6H	25.31	25.74	25.84	26.26	26.76	25.41	25.85	25.94	26.37	26.86
	8H	25.73	26.11	26.25	26.60	27.18	25.93	26.31	26.45	26.81	27.38

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



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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-1

Test Date: 07/30/2025

Luminaire Tested: EHBR-60-L840-N

Data in this report applies to families of products including EHBR-60-L840-N

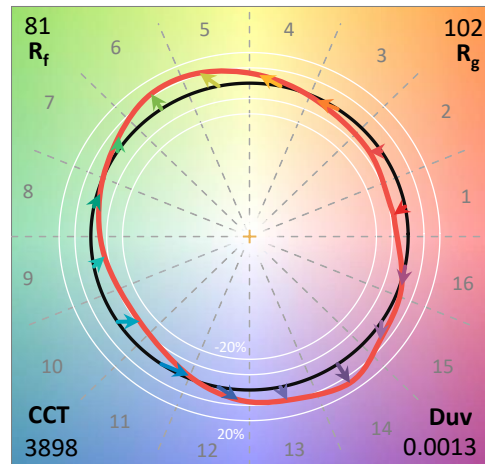
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-1
 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-L840-N**
 Description: Elevate Round Highbay at, 60000 lumens, 4000K 80CRI LEDs with N lens

Spectral Parameters

CCT (K): 3898
 CIE u': 0.2263
 CIE v': 0.5052
 Duv: 0.0013
 CIE x: 0.3861
 CIE y: 0.3831
 CIE z: 0.2308
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 578
 Purity: 30.85729
 Rf: 80.7
 Rg: 102.1

CRI (Ra):	82.1		
R1:	84.4	R9:	38.5
R2:	83.5	R10:	58.9
R3:	80.8	R11:	83.6
R4:	83.9	R12:	54.2
R5:	82.1	R13:	82.8
R6:	77.3	R14:	88.2
R7:	86.4	R15:	81.2
R8:	78.3		



Test Conditions

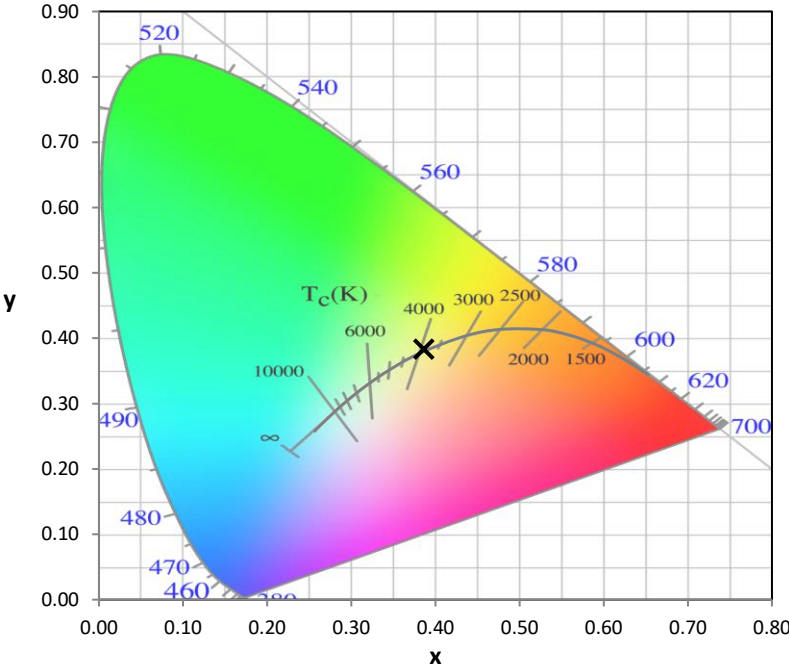
Stabilization Time: 42M
 Operation Time: 1H 42M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-1

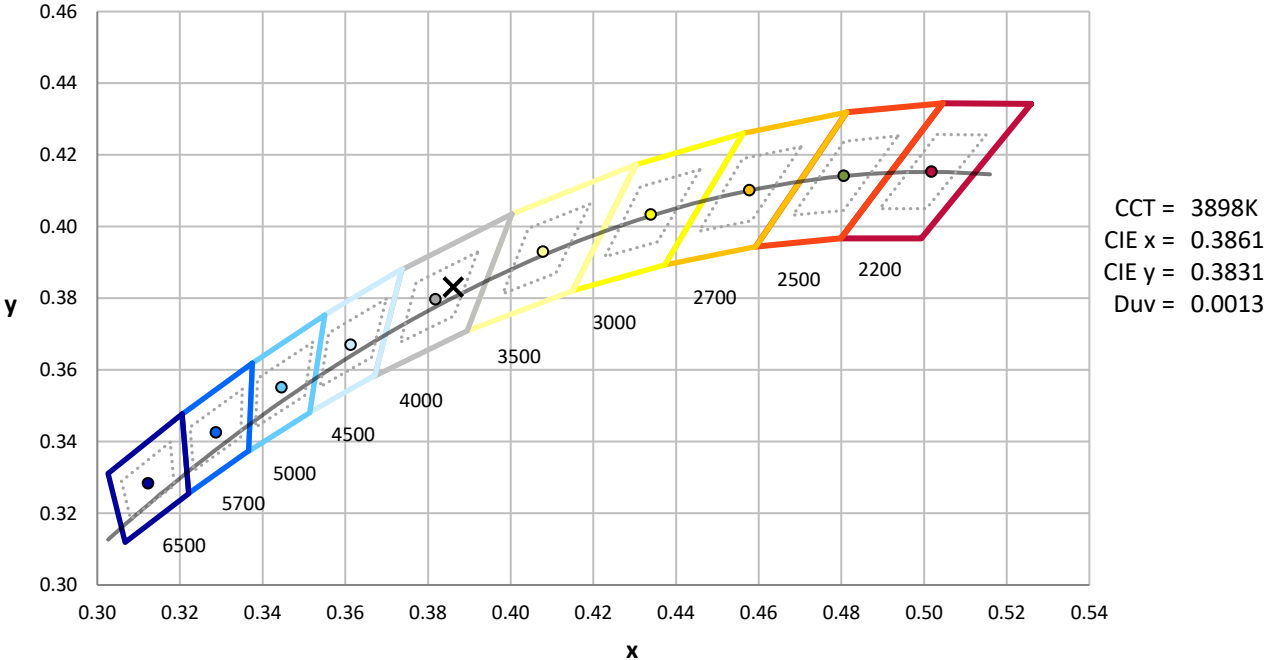
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	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: SP1-2506-472-1

CIE 1931 Chromaticity Diagram



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

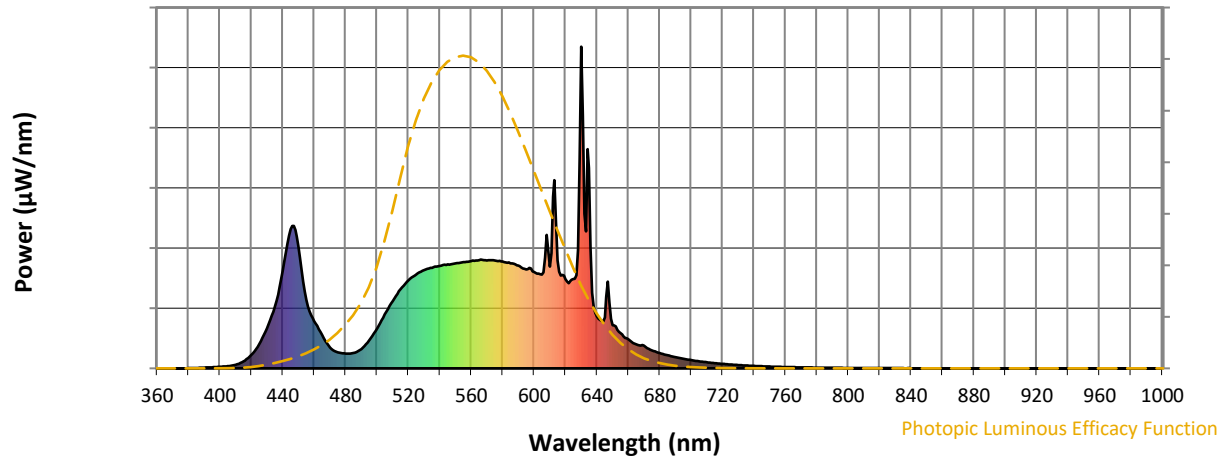


CCT = 3898K
 CIE x = 0.3861
 CIE y = 0.3831
 Duv = 0.0013

Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2506-472-1

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	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-1

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.55

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	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.99

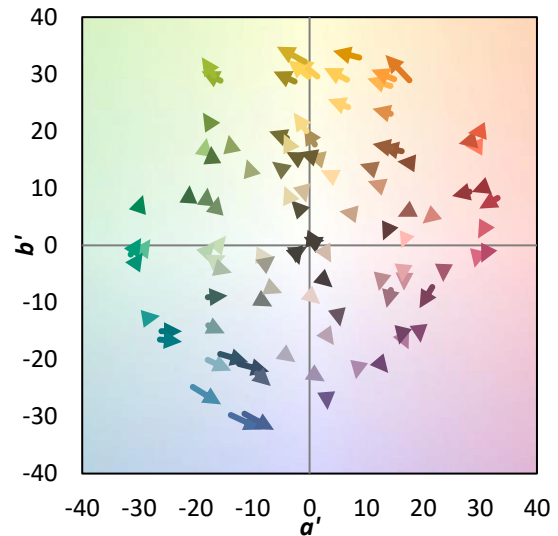
λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)	λ (nm)	Power W [^] /nm	Lumens (ϕ /nm)
360	0	NR	490	60	NR	620	277	NR	750	6	NR	880	0	NR
365	0	NR	495	87	NR	625	278	NR	755	5	NR	885	0	NR
370	0	NR	500	124	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	168	NR	635	623	NR	765	4	NR	895	0	NR
380	1	NR	510	209	NR	640	162	NR	770	3	NR	900	0	NR
385	1	NR	515	246	NR	645	158	NR	775	3	NR	905	0	NR
390	2	NR	520	273	NR	650	134	NR	780	2	NR	910	0	NR
395	4	NR	525	292	NR	655	109	NR	785	2	NR	915	0	NR
400	5	NR	530	305	NR	660	91	NR	790	2	NR	920	0	NR
405	7	NR	535	313	NR	665	75	NR	795	2	NR	925	0	NR
410	11	NR	540	319	NR	670	70	NR	800	1	NR	930	0	NR
415	21	NR	545	323	NR	675	56	NR	805	1	NR	935	0	NR
420	42	NR	550	326	NR	680	47	NR	810	1	NR	940	0	NR
425	76	NR	555	330	NR	685	41	NR	815	1	NR	945	0	NR
430	125	NR	560	333	NR	690	35	NR	820	1	NR	950	0	NR
435	193	NR	565	336	NR	695	30	NR	825	1	NR	955	0	NR
440	302	NR	570	336	NR	700	26	NR	830	1	NR	960	0	NR
445	432	NR	575	335	NR	705	22	NR	835	1	NR	965	0	NR
450	380	NR	580	332	NR	710	19	NR	840	0	NR	970	0	NR
455	213	NR	585	326	NR	715	16	NR	845	0	NR	975	0	NR
460	147	NR	590	319	NR	720	14	NR	850	0	NR	980	0	NR
465	104	NR	595	307	NR	725	12	NR	855	0	NR	985	0	NR
470	65	NR	600	299	NR	730	10	NR	860	0	NR	990	0	NR
475	50	NR	605	291	NR	735	9	NR	865	0	NR	995	0	NR
480	46	NR	610	317	NR	740	8	NR	870	0	NR	1000	0	NR
485	47	NR	615	336	NR	745	7	NR	875	0	NR			

Summary

$R_f = 80.7$
 $R_g = 102.1$
 CIE $R_a = 82.1$
 $R_9 = 38.5$



Color Vector Graphics

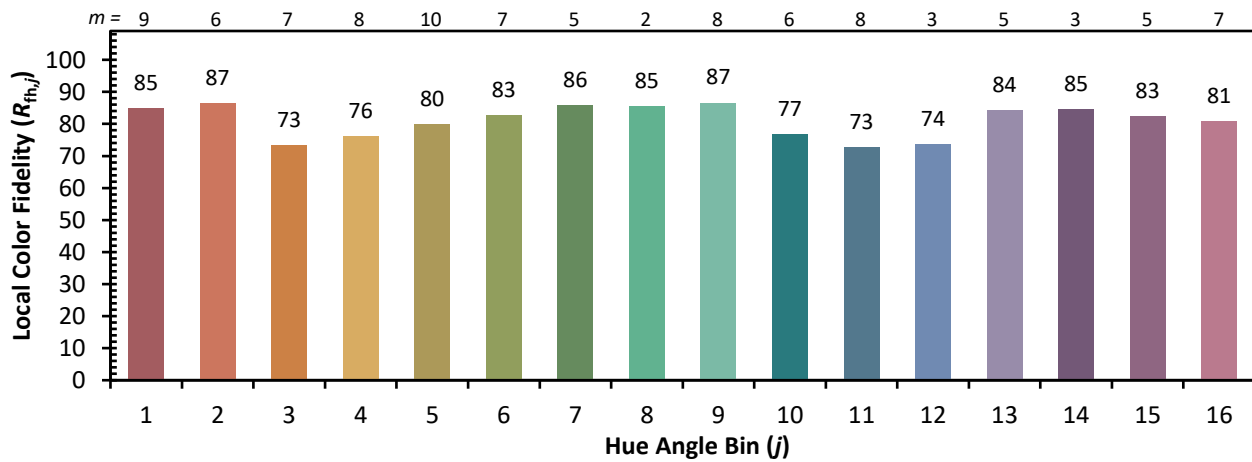
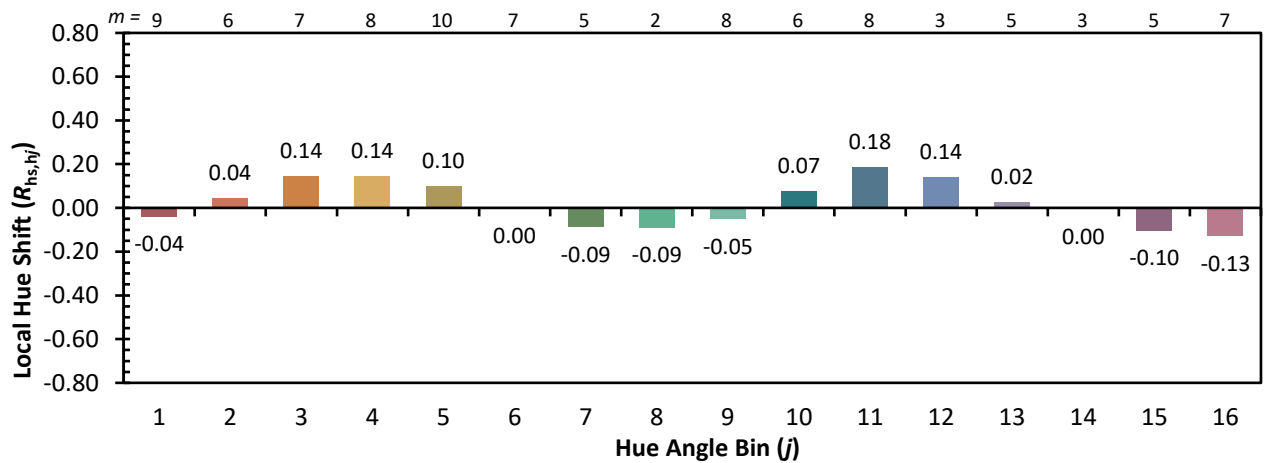
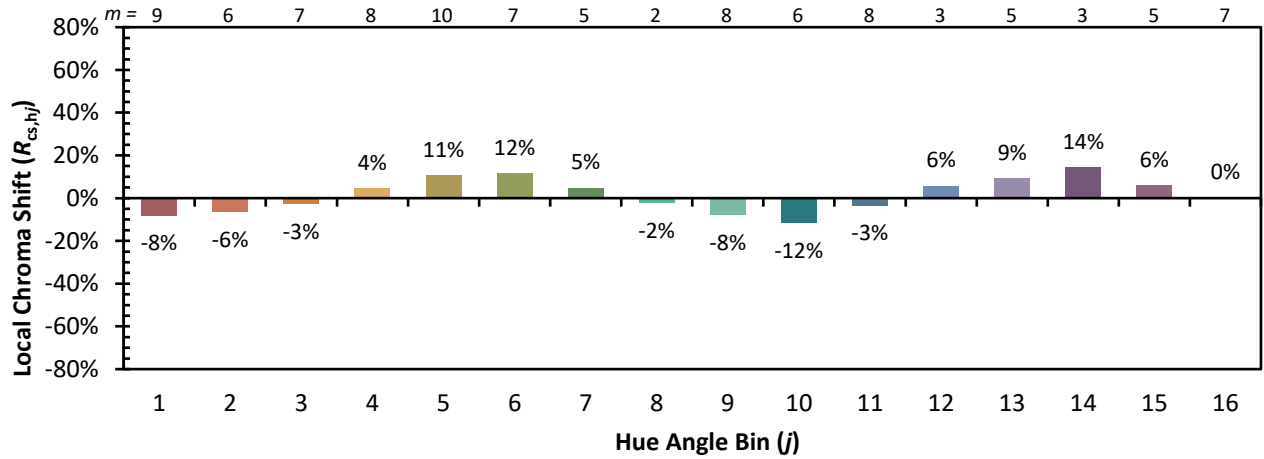


Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 69	CES51 = 90	CES76 = 58
CES02 = 61	CES27 = 89	CES52 = 90	CES77 = 76
CES03 = 31	CES28 = 83	CES53 = 80	CES78 = 60
CES04 = 69	CES29 = 66	CES54 = 91	CES79 = 85
CES05 = 48	CES30 = 76	CES55 = 89	CES80 = 79
CES06 = 50	CES31 = 69	CES56 = 79	CES81 = 81
CES07 = 41	CES32 = 62	CES57 = 77	CES82 = 91
CES08 = 40	CES33 = 74	CES58 = 79	CES83 = 88
CES09 = 29	CES34 = 72	CES59 = 93	CES84 = 89
CES10 = 74	CES35 = 84	CES60 = 95	CES85 = 84
CES11 = 57	CES36 = 98	CES61 = 92	CES86 = 82
CES12 = 63	CES37 = 77	CES62 = 89	CES87 = 81
CES13 = 43	CES38 = 83	CES63 = 80	CES88 = 86
CES14 = 74	CES39 = 94	CES64 = 80	CES89 = 79
CES15 = 71	CES40 = 88	CES65 = 77	CES90 = 85
CES16 = 47	CES41 = 89	CES66 = 74	CES91 = 83
CES17 = 49	CES42 = 74	CES67 = 72	CES92 = 77
CES18 = 56	CES43 = 73	CES68 = 78	CES93 = 86
CES19 = 71	CES44 = 98	CES69 = 83	CES94 = 69
CES20 = 65	CES45 = 82	CES70 = 69	CES95 = 80
CES21 = 86	CES46 = 82	CES71 = 64	CES96 = 86
CES22 = 78	CES47 = 80	CES72 = 88	CES97 = 83
CES23 = 91	CES48 = 79	CES73 = 60	CES98 = 81
CES24 = 90	CES49 = 80	CES74 = 98	CES99 = 83
CES25 = 71	CES50 = 89	CES75 = 62	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)