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

Scaled data based on original data using

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P821464

Luminaire Tested: **TT-D5-830-12VDC-RW-HSS**

Issue Date: 12/2/2020

Report Generated By 670245763

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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P821464
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-5)
Test Lab:	INNOVATION CENTER
Issue Date:	12/2/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D5-830-12VDC-RW-HSS
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE
	3000K, 80 CRI LEDS AND RECTANGULAR DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	5352.9 lumens
Efficiency:	N/A
Efficacy:	73.3 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B2 - U2 - G3

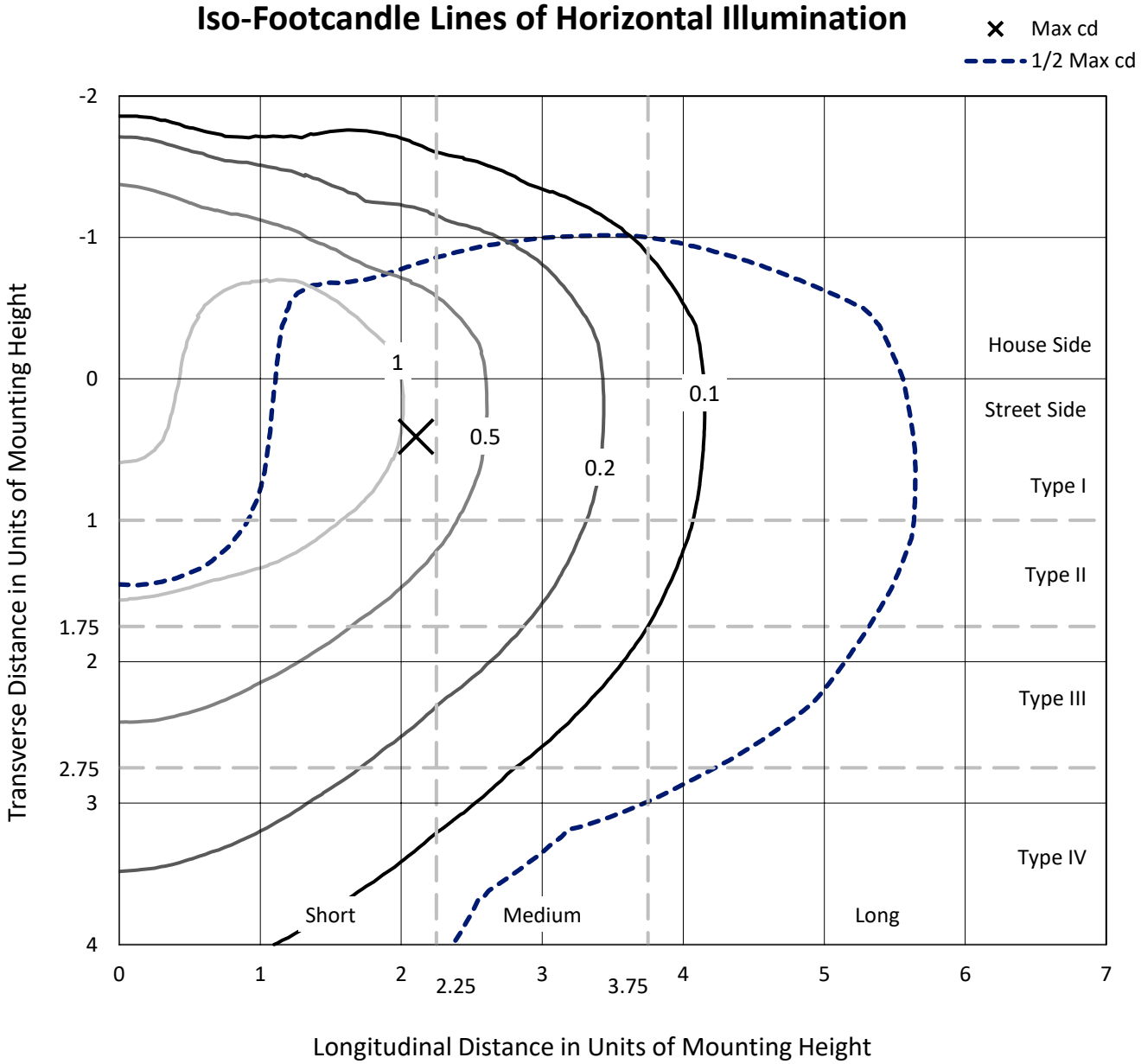
Input Watts (W):	73
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



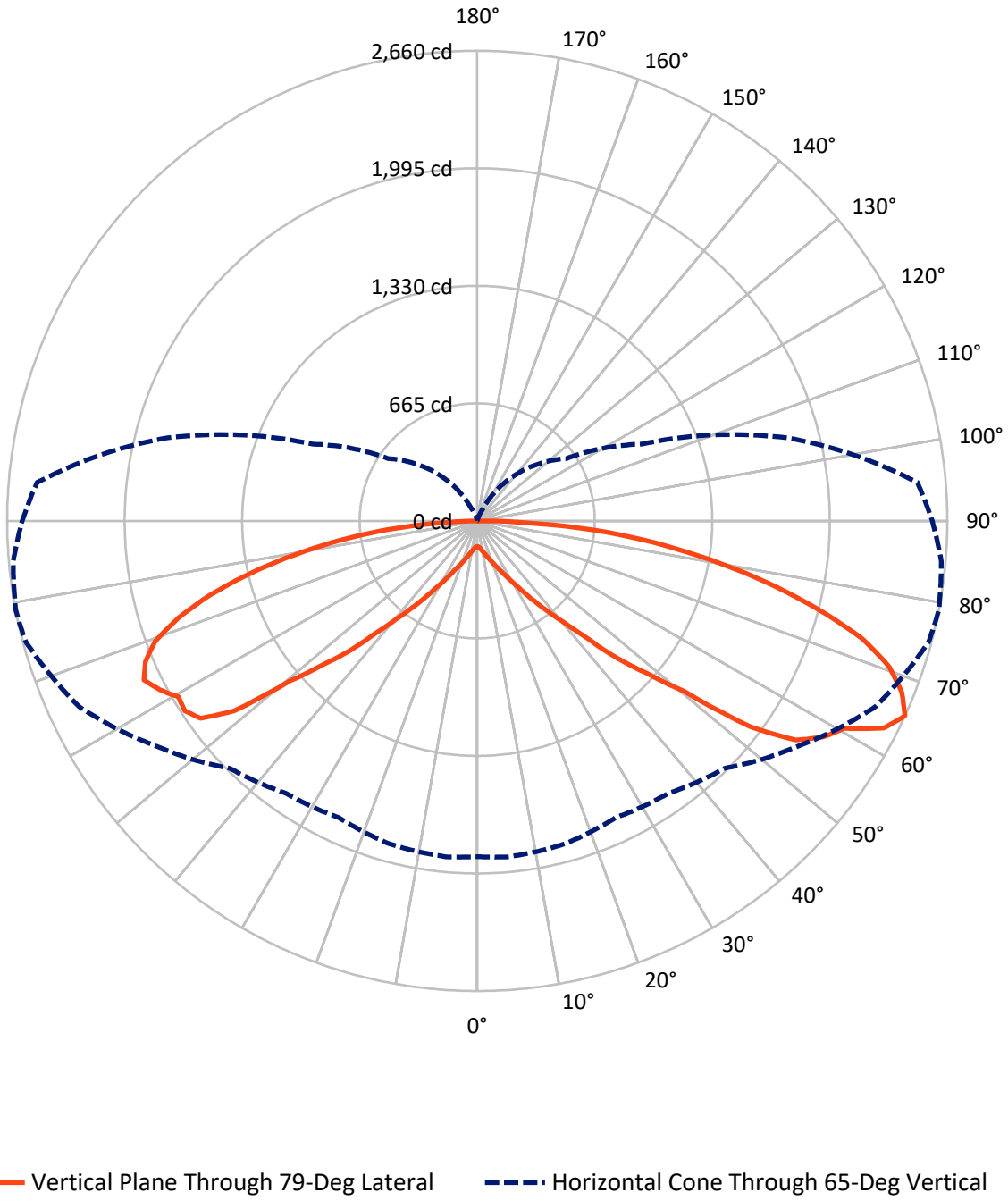
Based on 15 foot mounting height. Maximum calculated value = 1.9 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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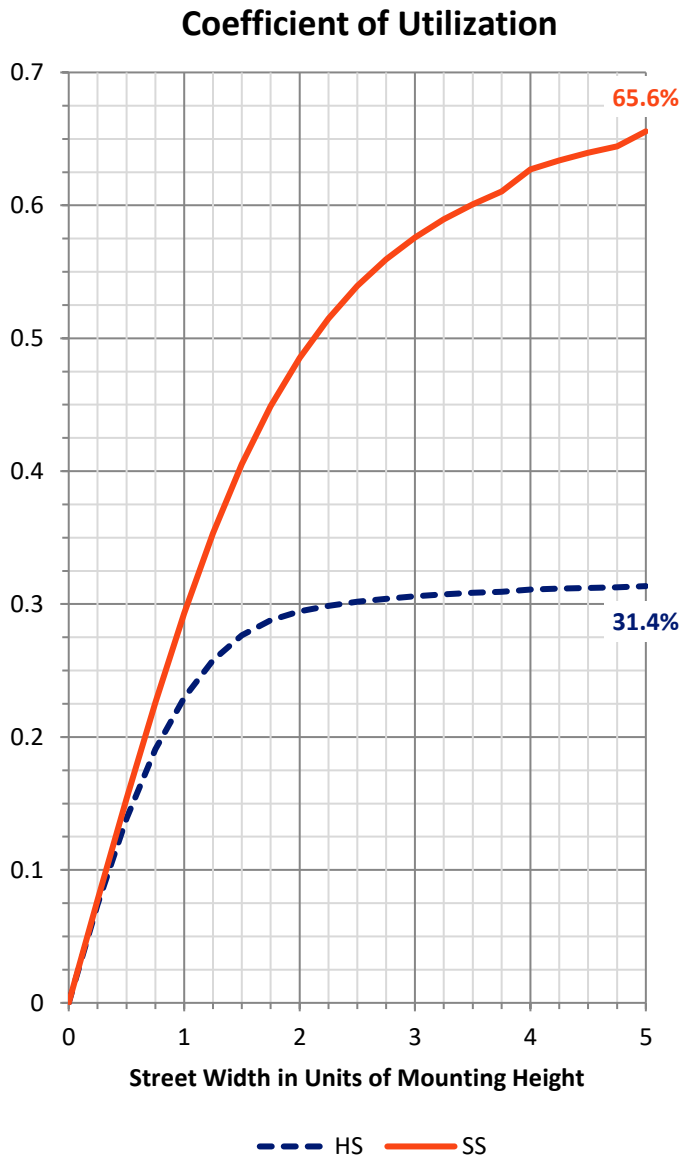
REPORT NUMBER: P821464
CATALOG NUMBER: TT-D5-830-12VDC-RW-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1690.4	2.1	1692.5
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	3636.9	23.6	3660.4
	% Fixture	67.9	0.4	68.4
Total	Lumens	5327.3	25.7	5352.9
	% Fixture	99.5	0.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.3	0.3
10°-20°	57.7	1.1
20°-30°	133.0	2.5
30°-40°	284.9	5.3
40°-50°	610.3	11.4
50°-60°	1152.6	21.5
60°-70°	1432.4	26.8
70°-80°	1226.3	22.9
80°-90°	414.8	7.7
90°-100°	17.9	0.3
100°-110°	5.2	0.1
110°-120°	1.1	0.0
120°-130°	0.6	0.0
130°-140°	0.4	0.0
140°-150°	0.3	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	5327.3	99.5
0°-180°	5352.9	100.0



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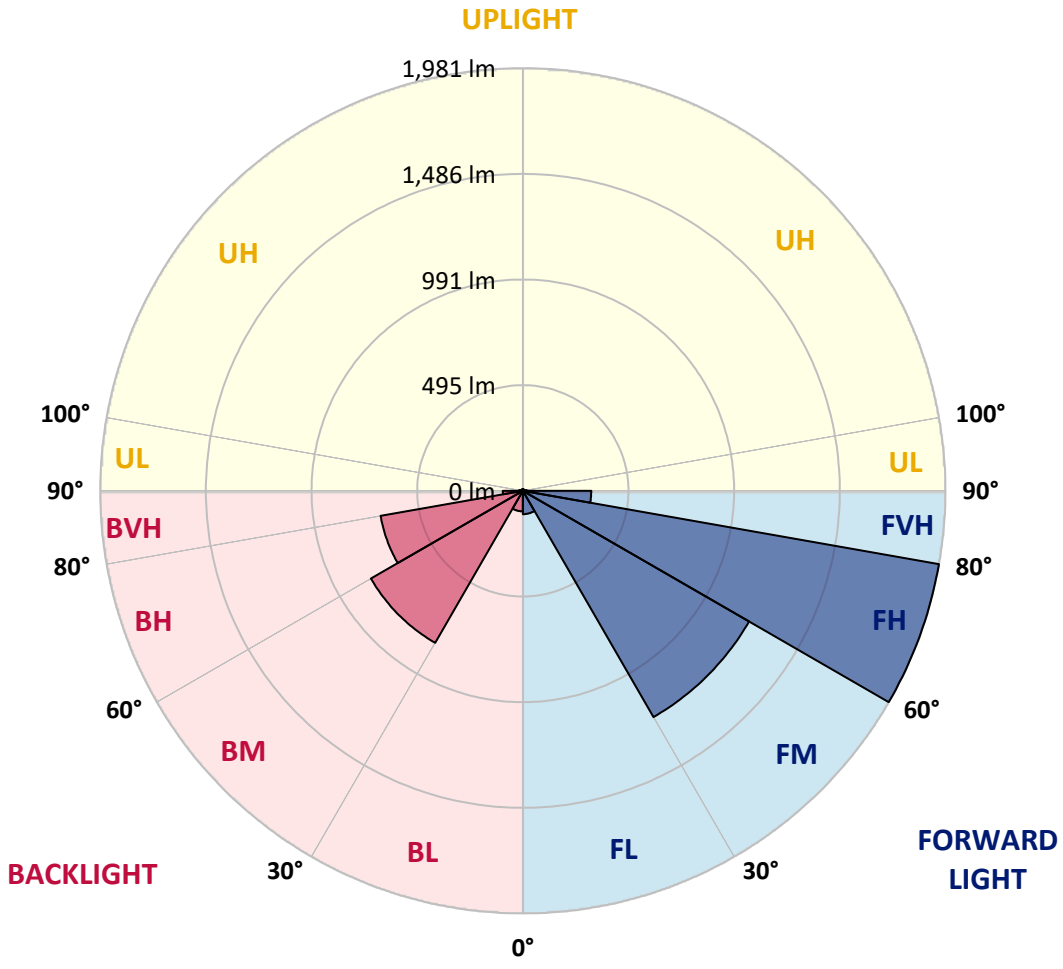
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	109.5	2.0			
FM	(30°-60°)	1225.0	22.9			
FH	(60°-80°)	1981.5	37.0			G2/5000
FVH	(80°-90°)	320.9	6.0			G3/500
BL	(0°-30°)	96.4	1.8	B0/110		
BM	(30°-60°)	822.8	15.4	B1/1000		
BH	(60°-80°)	677.2	12.7	B2/1000		G2/1000
BVH	(80°-90°)	93.9	1.8			G1/100
UL	(90°-100°)	17.9	0.3		U2/50	
UH	(100°-180°)	7.8	0.1		U1/10	

BUG Rating: B2-U2-G3
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	*145.4*	145.4
2.5°	153.4	153.4	153.4	152.1	152.1	152.1	150.7	149.4	148.1	*148.1*	148.1
5°	161.4	161.4	161.4	161.4	160.1	158.7	157.4	156.1	154.7	*154.7*	153.4
7.5°	172.1	170.7	172.1	170.7	170.7	169.4	168.1	166.7	164.1	*164.1*	162.7
10°	182.7	182.7	182.7	182.7	182.7	181.4	180.1	178.7	177.4	*176.1*	174.7
12.5°	196.1	196.1	196.1	194.7	196.1	194.7	193.4	193.4	192.1	*189.4*	189.4
15°	209.4	209.4	209.4	209.4	210.8	210.8	210.8	209.4	209.4	*208.1*	206.7
17.5°	225.4	224.1	225.4	225.4	226.8	228.1	229.4	230.8	230.8	*229.4*	229.4
20°	242.8	241.4	242.8	242.8	245.4	248.1	252.1	254.8	256.1	*253.4*	253.4
22.5°	261.4	260.1	262.8	262.8	266.8	270.8	277.4	280.1	284.1	*282.8*	282.8
25°	284.1	282.8	284.1	285.4	290.8	297.5	305.5	312.1	316.1	*316.1*	317.5
27.5°	309.5	309.5	310.8	312.1	317.5	328.1	340.1	352.1	361.5	*360.1*	361.5
30°	344.1	344.1	346.8	348.1	354.8	366.8	382.8	398.8	412.2	*412.2*	414.8
32.5°	382.8	381.5	385.5	386.8	393.5	409.5	432.2	457.5	474.9	*474.9*	477.5
35°	429.5	428.2	432.2	432.2	440.2	462.9	492.2	526.9	556.2	*557.6*	561.6
37.5°	488.2	485.5	485.5	489.5	498.9	528.2	568.2	616.2	646.9	*649.6*	656.3
40°	557.6	556.2	558.9	557.6	569.6	605.6	656.3	712.3	748.3	*755.0*	763.0
42.5°	642.9	645.6	641.6	641.6	656.3	697.6	757.6	823.0	888.4	*896.4*	900.4
45°	747.0	752.3	747.0	745.6	759.0	807.0	889.7	1004.4	1080.4	*1107.1*	1115.1
47.5°	872.3	875.0	868.3	865.7	880.4	941.7	1048.4	1176.5	1265.8	*1285.8*	1307.2
50°	1012.4	1008.4	1003.1	999.1	1027.1	1103.1	1227.2	1359.2	1512.6	*1515.3*	1523.3
52.5°	1156.5	1144.5	1145.8	1144.5	1183.1	1265.8	1431.2	1655.3	1888.8	*1936.8*	1942.1
55°	1300.5	1285.8	1284.5	1297.9	1352.5	1471.3	1679.3	1970.1	2159.5	*2188.9*	2184.9
57.5°	1444.6	1437.9	1435.2	1447.2	1527.3	1668.7	1903.4	2148.9	2310.3	*2307.6*	2279.6
60°	1594.0	1599.3	1590.0	1612.6	1695.3	1836.7	2007.5	2246.2	2395.6	*2383.6*	2355.6
62.5°	1747.4	1760.7	1751.4	1754.0	1807.4	1911.4	2079.5	2356.9	2563.7	*2581.0*	2549.0
65°	*1899.4*	*1908.8*	*1894.1*	*1852.7*	*1882.1*	*1979.5*	*2219.6*	*2486.3*	*2643.7*	*2659.7*	*2635.7*
67.5°	2027.5	2036.8	1986.1	1920.8	1924.8	1995.5	2206.2	2461.0	2601.0	*2590.4*	2551.7
70°	2136.9	2119.5	2036.8	1924.8	1878.1	1911.4	2110.2	2335.6	2478.3	*2473.0*	2427.6
72.5°	2172.9	2150.2	2010.1	1836.7	1744.7	1756.7	1950.1	2151.5	2267.6	*2276.9*	2222.2
75°	2115.5	2076.8	1884.8	1667.3	1548.6	1556.6	1722.0	1907.4	2000.8	*1990.1*	1947.4
77.5°	1908.8	1870.1	1662.0	1429.9	1313.9	1325.9	1456.6	1602.0	1679.3	*1675.3*	1646.0
80°	1584.6	1550.0	1367.2	1151.1	1045.8	1052.4	1152.5	1267.2	1327.2	*1340.5*	1324.5
82.5°	1171.1	1147.1	1017.7	843.0	757.6	756.3	832.3	920.4	979.1	*1007.1*	996.4
85°	724.3	712.3	640.3	526.9	466.9	465.5	510.9	576.2	629.6	*666.9*	642.9
87.5°	288.1	284.1	262.8	212.1	185.4	176.1	165.4	206.7	210.8	*249.4*	248.1
90°	70.7	69.4	68.0	64.0	57.4	49.4	40.0	29.3	18.7	*14.7*	8.0
92.5°	62.7	62.7	61.4	57.4	52.0	44.0	36.0	26.7	17.3	*13.3*	6.7
95°	50.7	50.7	49.4	46.7	41.3	36.0	28.0	21.3	13.3	*10.7*	5.3
97.5°	38.7	37.3	37.3	34.7	32.0	26.7	21.3	16.0	10.7	*8.0*	4.0
100°	28.0	28.0	26.7	25.3	22.7	20.0	16.0	12.0	6.7	*5.3*	2.7
102.5°	20.0	18.7	18.7	18.7	16.0	13.3	10.7	8.0	5.3	*4.0*	1.3
105°	13.3	12.0	12.0	12.0	10.7	9.3	6.7	5.3	2.7	*2.7*	1.3
107.5°	8.0	8.0	8.0	8.0	6.7	5.3	4.0	2.7	1.3	*1.3*	1.3
110°	4.0	4.0	4.0	5.3	4.0	4.0	2.7	1.3	1.3	*1.3*	1.3

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
112.5°	2.7	2.7	2.7	2.7	2.7	2.7	1.3	1.3	1.3	*1.3*	1.3
115°	1.3	1.3	1.3	2.7	2.7	1.3	1.3	0.0	0.0	*1.3*	1.3
117.5°	0.0	0.0	1.3	1.3	1.3	1.3	0.0	0.0	0.0	*0.0*	1.3
120°	0.0	0.0	1.3	1.3	1.3	1.3	0.0	0.0	0.0	*0.0*	1.3
122.5°	0.0	0.0	1.3	1.3	1.3	1.3	0.0	0.0	0.0	*0.0*	1.3
125°	0.0	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	*0.0*	1.3
127.5°	0.0	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	*0.0*	1.3
130°	0.0	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	*0.0*	1.3
132.5°	0.0	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	*0.0*	1.3
135°	0.0	0.0	0.0	1.3	1.3	0.0	0.0	0.0	0.0	*0.0*	0.0
137.5°	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	*0.0*	0.0
140°	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	*0.0*	0.0
142.5°	0.0	0.0	0.0	0.0	1.3	1.3	0.0	0.0	0.0	*0.0*	0.0
145°	0.0	0.0	0.0	1.3	1.3	1.3	1.3	0.0	0.0	*0.0*	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	*0.0*	0.0
150°	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	*0.0*	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
157.5°	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	*0.0*	0.0
160°	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	*0.0*	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
177.5°	0.0	0.0	0.0	1.3	0.0	1.3	0.0	0.0	0.0	*0.0*	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4	145.4
2.5°	146.7	146.7	146.7	145.4	145.4	145.4	144.1	144.1	142.7	142.7	142.7
5°	152.1	152.1	150.7	150.7	149.4	148.1	148.1	146.7	146.7	145.4	145.4
7.5°	161.4	161.4	160.1	158.7	156.1	154.7	153.4	152.1	152.1	150.7	150.7
10°	173.4	173.4	170.7	168.1	165.4	162.7	161.4	158.7	157.4	157.4	157.4
12.5°	188.1	186.7	184.1	180.1	177.4	173.4	170.7	168.1	165.4	165.4	165.4
15°	205.4	205.4	200.1	196.1	190.7	185.4	181.4	177.4	174.7	173.4	173.4
17.5°	226.8	226.8	220.1	213.4	206.7	200.1	194.7	189.4	186.7	185.4	185.4
20°	250.8	250.8	244.1	236.1	226.8	217.4	209.4	202.7	198.7	197.4	197.4
22.5°	280.1	280.1	270.8	260.1	248.1	234.8	224.1	216.1	212.1	209.4	209.4
25°	313.5	310.8	301.5	288.1	270.8	254.8	240.1	232.1	226.8	222.8	224.1
27.5°	358.8	354.8	342.8	320.1	298.8	277.4	260.1	249.4	242.8	240.1	241.4
30°	410.8	406.8	389.5	364.1	332.1	304.1	282.8	270.8	264.1	260.1	261.4
32.5°	473.5	468.2	446.8	412.2	374.8	334.8	308.1	293.5	286.8	282.8	281.4
35°	556.2	549.6	522.9	474.9	422.8	374.8	337.5	318.8	312.1	308.1	309.5
37.5°	649.6	640.3	604.2	545.6	480.2	418.8	376.2	352.1	344.1	337.5	337.5
40°	756.3	745.6	698.9	621.6	542.9	466.9	412.2	385.5	376.2	376.2	376.2
42.5°	889.7	879.0	825.7	712.3	608.2	518.9	453.5	422.8	413.5	416.2	416.2
45°	1096.4	1081.8	996.4	847.0	693.6	572.2	496.2	461.5	454.8	461.5	461.5
47.5°	1285.8	1267.2	1141.8	972.4	777.6	625.6	538.9	498.9	496.2	510.9	510.9
50°	1497.9	1473.9	1341.9	1073.8	845.7	684.3	577.6	529.5	530.9	552.2	558.9
52.5°	1908.8	1883.4	1655.3	1257.8	919.0	705.6	593.6	536.2	536.2	560.2	569.6
55°	2152.9	2100.8	1803.4	1377.9	949.7	731.0	586.9	509.5	506.9	533.5	541.6
57.5°	2232.9	2179.5	1834.1	1343.2	929.7	698.9	548.2	437.5	432.2	466.9	464.2
60°	2298.3	2227.6	1784.7	1227.2	816.3	630.9	473.5	325.5	302.8	333.5	332.1
62.5°	2482.3	2406.3	1787.4	1091.1	682.9	526.9	356.1	182.7	136.1	160.1	149.4
65°	*2574.4*	*2499.7*	*1815.4*	*1027.1*	*614.9*	*436.2*	*254.8*	*74.7*	*5.3*	*5.3*	*2.7*
67.5°	2495.7	2429.0	1779.4	1011.1	605.6	433.5	258.8	73.4	0.0	0.0	0.0
70°	2381.0	2316.9	1696.7	955.0	574.9	417.5	253.4	73.4	0.0	0.0	0.0
72.5°	2179.5	2114.2	1554.0	875.0	528.2	382.8	234.8	69.4	0.0	0.0	0.0
75°	1914.1	1864.7	1372.6	771.0	465.5	337.5	208.1	61.4	0.0	0.0	0.0
77.5°	1620.6	1562.0	1151.1	641.6	389.5	280.1	176.1	50.7	0.0	0.0	0.0
80°	1300.5	1257.8	907.0	502.9	301.5	218.8	137.4	38.7	0.0	0.0	0.0
82.5°	967.1	931.0	670.9	360.1	214.8	152.1	94.7	25.3	0.0	0.0	0.0
85°	634.9	625.6	430.8	218.8	128.1	84.0	50.7	12.0	0.0	0.0	0.0
87.5°	229.4	237.4	157.4	62.7	34.7	14.7	6.7	1.3	0.0	0.0	0.0
90°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
92.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
95°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
97.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
100°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
102.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
105°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
107.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
110°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report

REPORT NUMBER: P821464
CATALOG NUMBER: TT-D5-830-12VDC-RW-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
115°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
117.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
120°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
122.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
125°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
127.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
130°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
132.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
135°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
150°	0.0	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Streetworks

Report Number: SP1-2407-176-7

Test Date: 09/27/2024

Luminaire Tested: MEM2-HTN-VA-30-830-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-830-U-WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

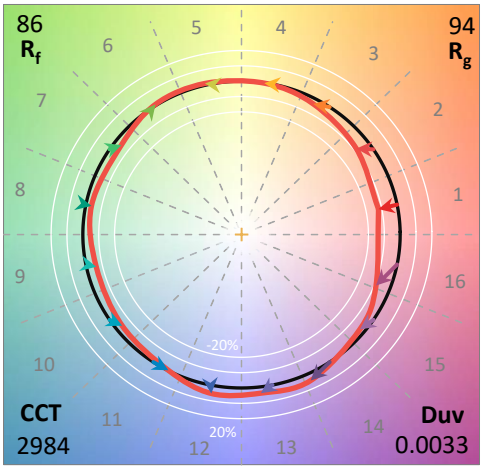
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-7
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	09/27/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Streetworks
Catalog Number:	**MEM2-HTN-VA-30-830-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	2984	CRI (Ra):	81.8		
CIE u':	0.2500	R1:	79.4	R9:	-1.1
CIE v':	0.5264	R2:	89.9	R10:	78.4
Duv:	0.0033	R3:	96.6	R11:	80.8
CIE x:	0.4431	R4:	80.6	R12:	72.8
CIE y:	0.4147	R5:	80.1	R13:	81.7
CIE z:	0.1422	R6:	88.9	R14:	98.5
Peak Wavelength (nm):	601	R7:	82.6	R15:	70.2
Dominant Wavelength (nm):	581	R8:	56.0		
Purity:	57.4798				

Rf:	85.8
Rg:	94.1



Test Conditions

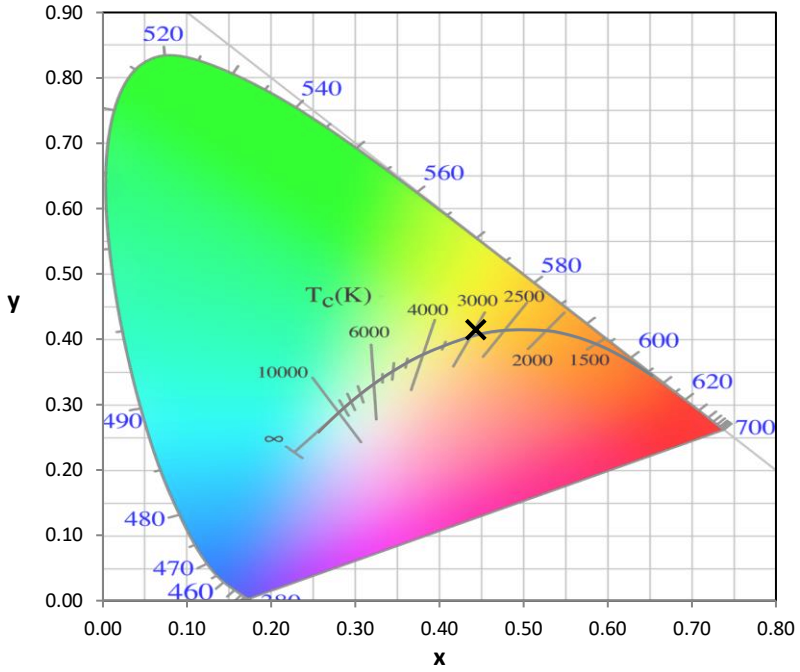
Stabilization Time:	29M
Operation Time:	1H 29M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-7

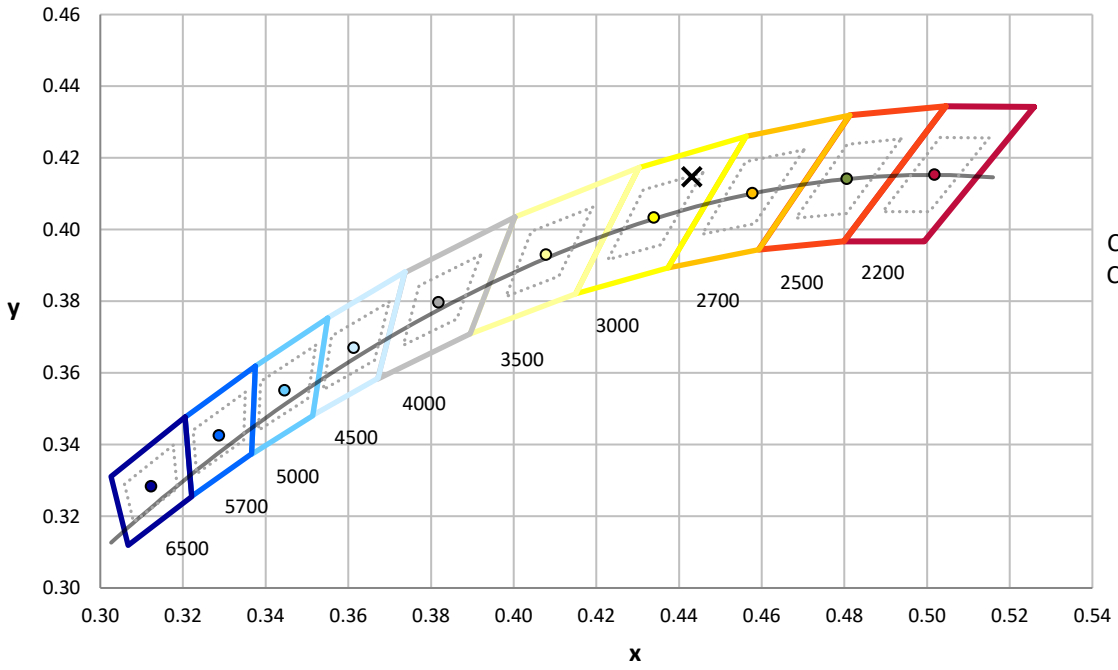
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2407-176-7

CIE 1931 Chromaticity Diagram



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

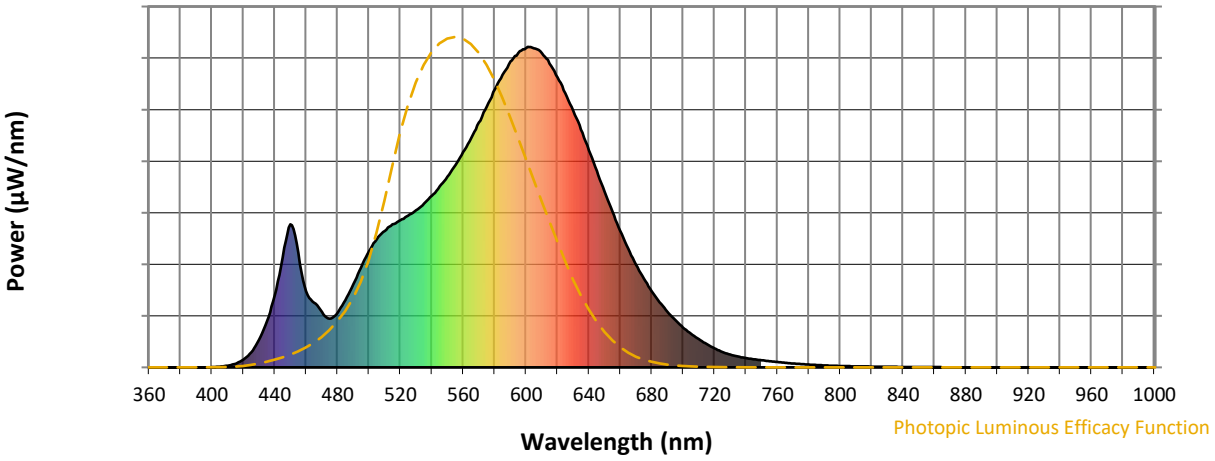


CCT = 2984K
CIE x = 0.4431
CIE y = 0.4147
Duv = 0.0033

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-7

Photopic Flux vs. Wavelength

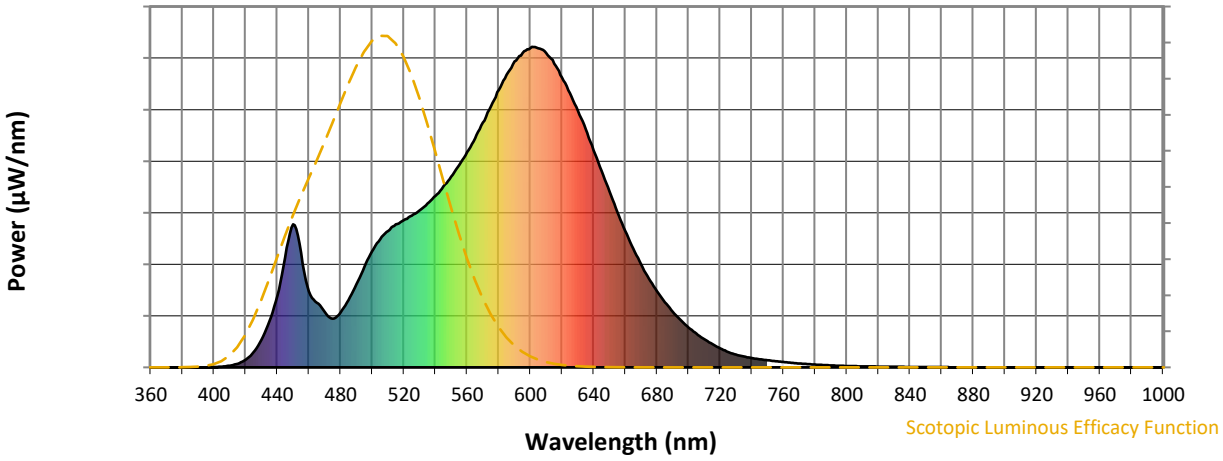


Photopic Lumens: NR

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	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-7

Scotopic Flux vs. Wavelength

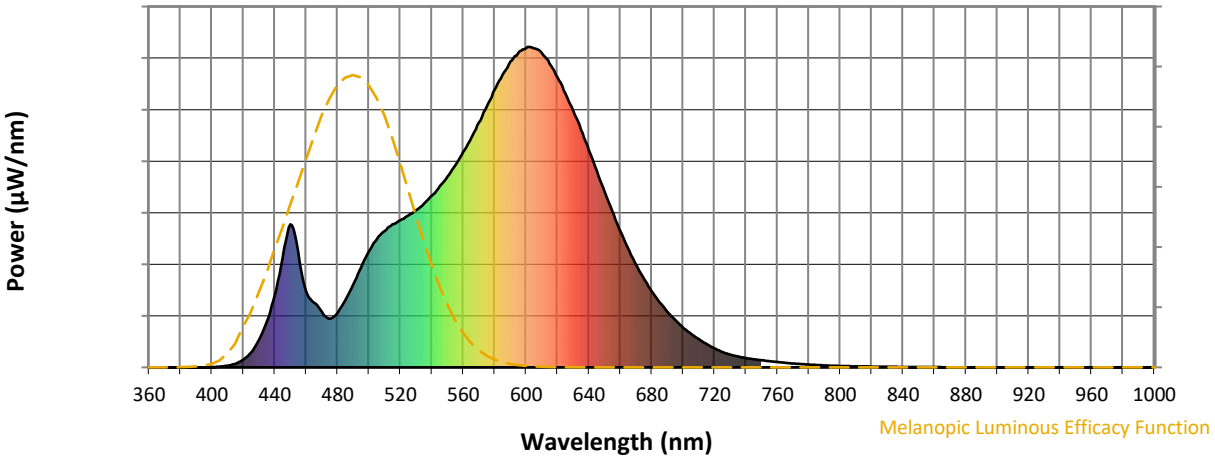


Scotopic Lumens: NR **S/P: 1.32**

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	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-7

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.51**

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	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

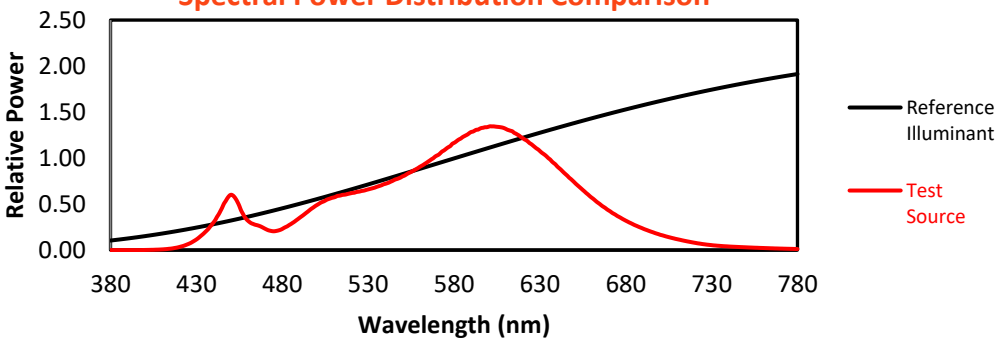
REPORT NUMBER: SP1-2407-176-7

TM-30-18

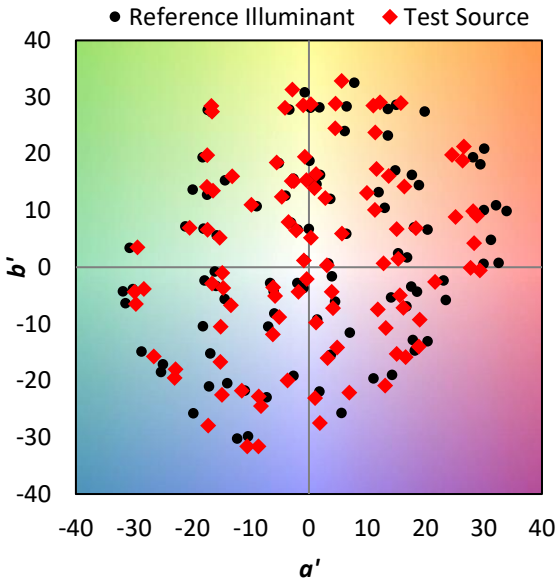
Summary

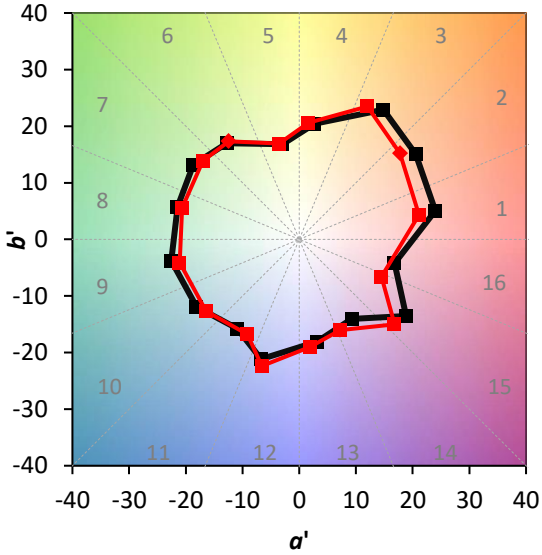
R_f = 85.8
R_g = 94.1
CIE R_a = 81.8
R_9 = -1.1

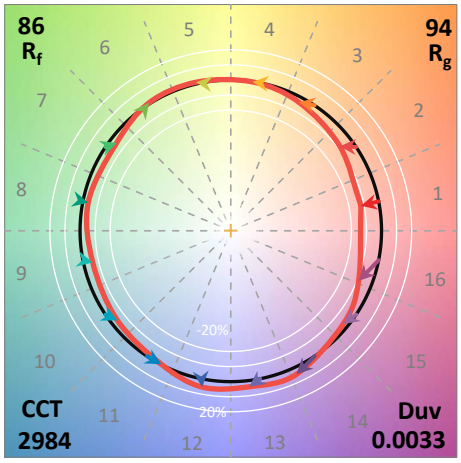
Spectral Power Distribution Comparison

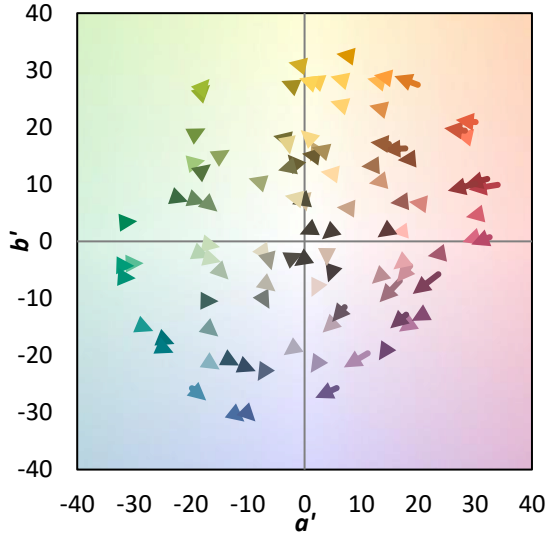


Color Vector Graphics







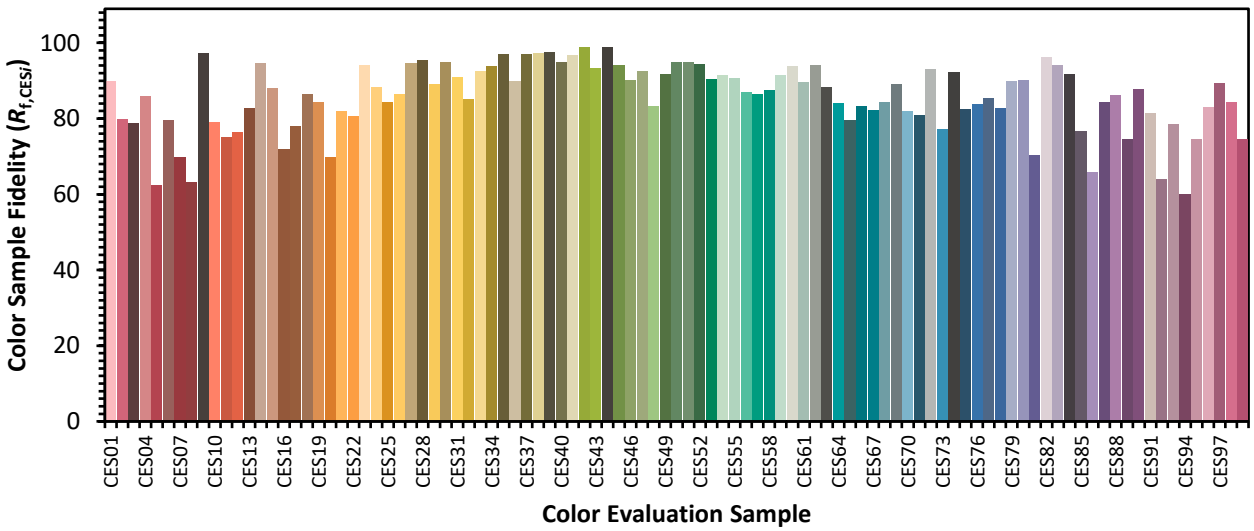


REPORT NUMBER: SP1-2407-176-7

TM-30-18

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

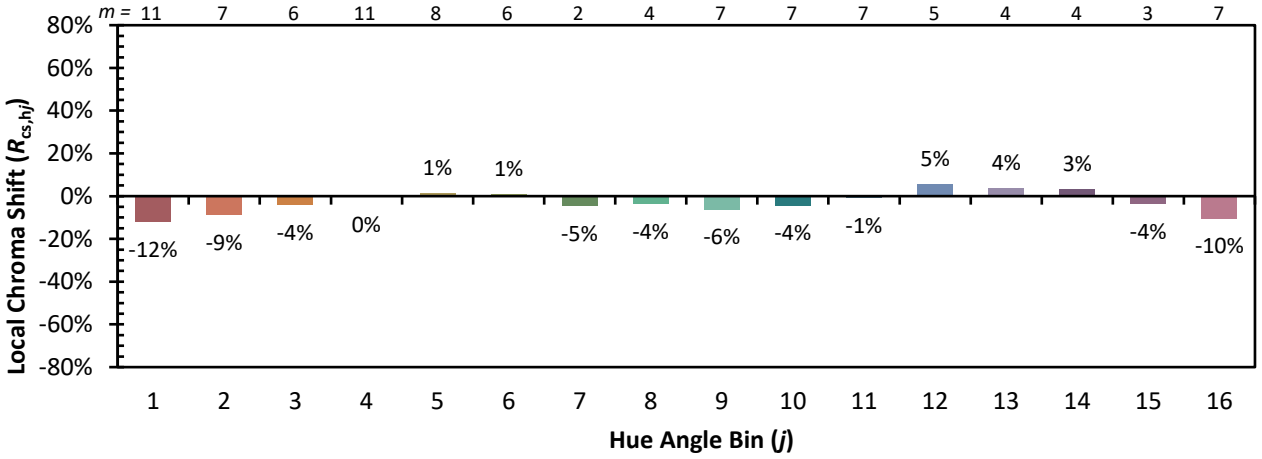
CES01 = 86	CES26 = 86	CES51 = 95	CES76 = 84
CES02 = 63	CES27 = 95	CES52 = 94	CES77 = 86
CES03 = 31	CES28 = 95	CES53 = 90	CES78 = 83
CES04 = 70	CES29 = 89	CES54 = 91	CES79 = 90
CES05 = 50	CES30 = 95	CES55 = 91	CES80 = 90
CES06 = 51	CES31 = 91	CES56 = 87	CES81 = 70
CES07 = 42	CES32 = 85	CES57 = 86	CES82 = 96
CES08 = 41	CES33 = 93	CES58 = 87	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 97	CES60 = 94	CES85 = 77
CES11 = 59	CES36 = 90	CES61 = 90	CES86 = 66
CES12 = 65	CES37 = 97	CES62 = 94	CES87 = 84
CES13 = 43	CES38 = 97	CES63 = 88	CES88 = 86
CES14 = 74	CES39 = 98	CES64 = 84	CES89 = 75
CES15 = 72	CES40 = 95	CES65 = 80	CES90 = 88
CES16 = 47	CES41 = 97	CES66 = 83	CES91 = 81
CES17 = 50	CES42 = 99	CES67 = 82	CES92 = 64
CES18 = 56	CES43 = 93	CES68 = 84	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 89	CES94 = 60
CES20 = 67	CES45 = 94	CES70 = 82	CES95 = 74
CES21 = 87	CES46 = 90	CES71 = 81	CES96 = 83
CES22 = 79	CES47 = 93	CES72 = 93	CES97 = 89
CES23 = 92	CES48 = 83	CES73 = 77	CES98 = 84
CES24 = 91	CES49 = 92	CES74 = 92	CES99 = 75
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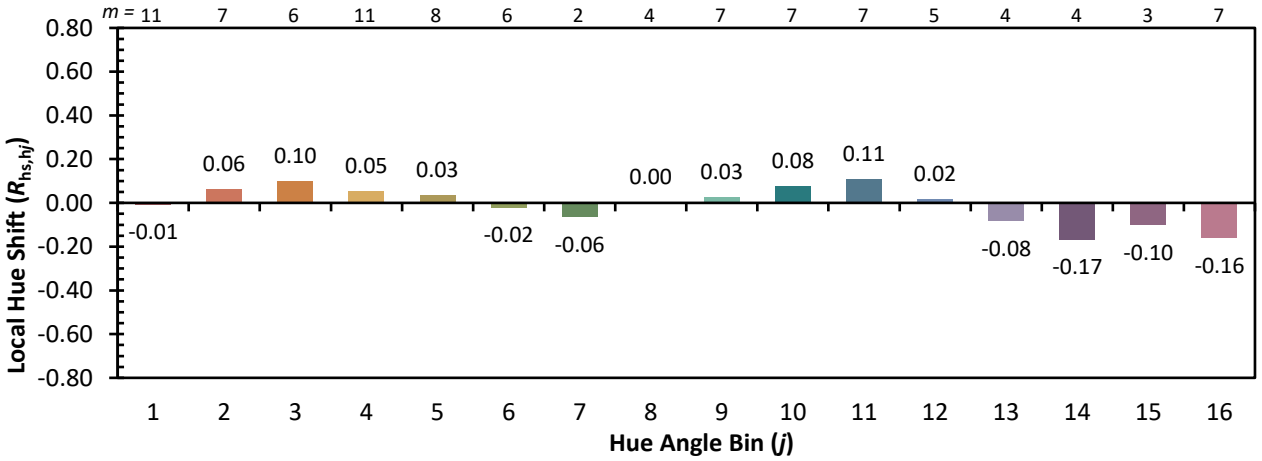


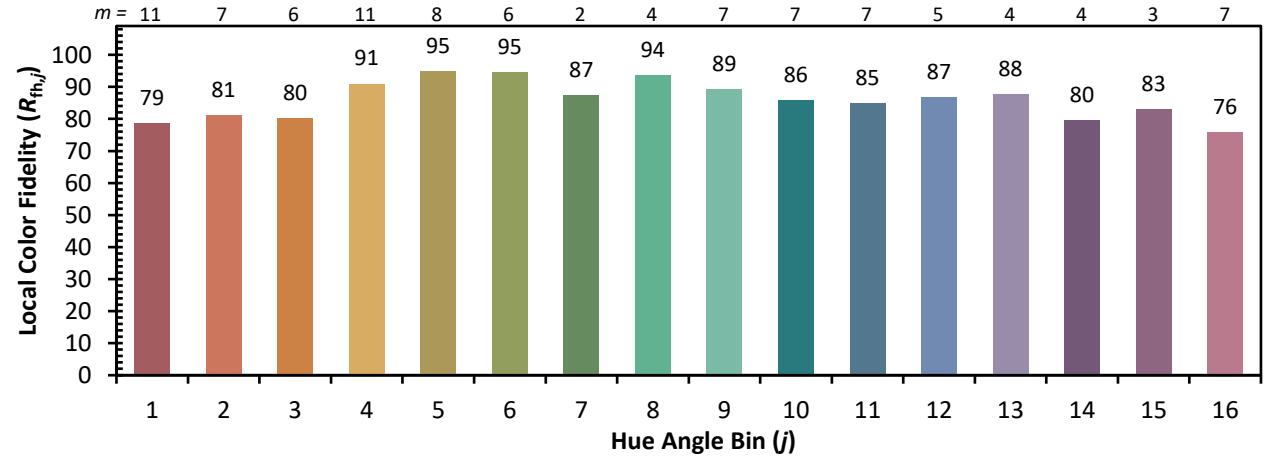
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Color Rendition by Hue-Angle Bin



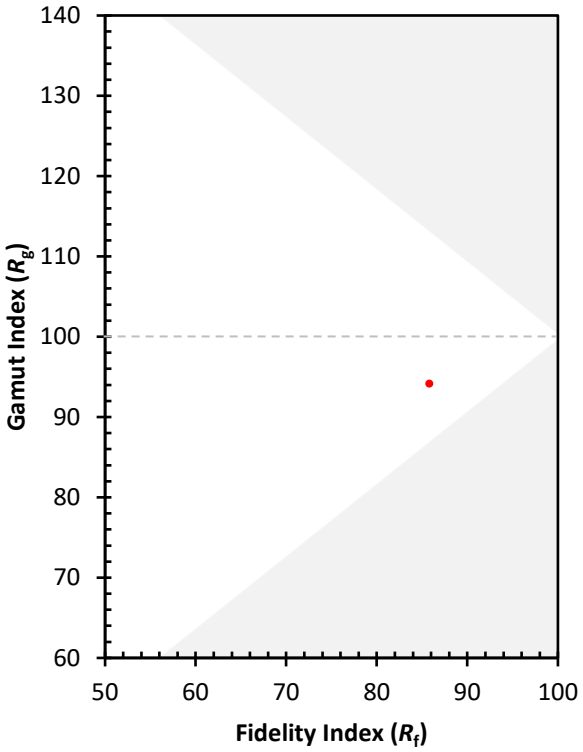


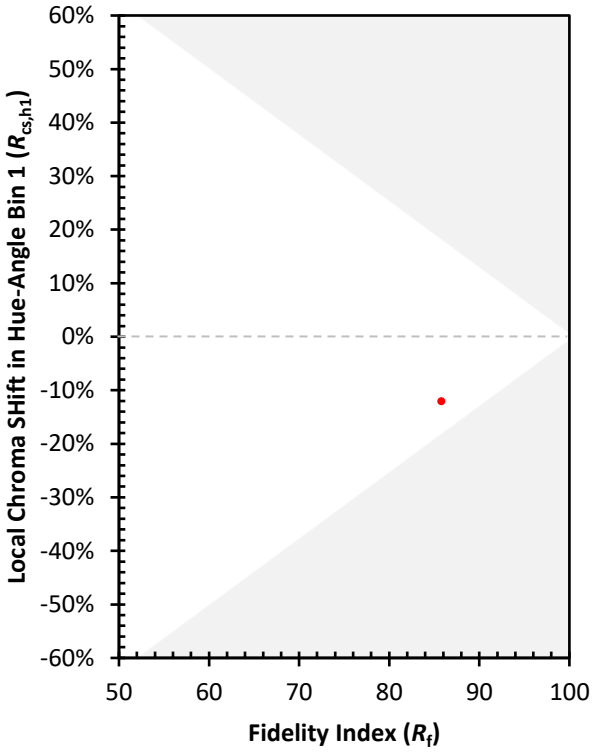


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Measure Comparisons





(END OF REPORT)