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: P821570

Luminaire Tested: **TT-D1-750-12VDC-WQ-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:	P821570
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-2)
Test Lab:	INNOVATION CENTER
Issue Date:	12/2/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D1-750-12VDC-WQ-HSS
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE
	5000K, 70 CRI LEDS AND WIDE DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	3120 lumens
Efficiency:	N/A
Efficacy:	111.4 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U1 - G2

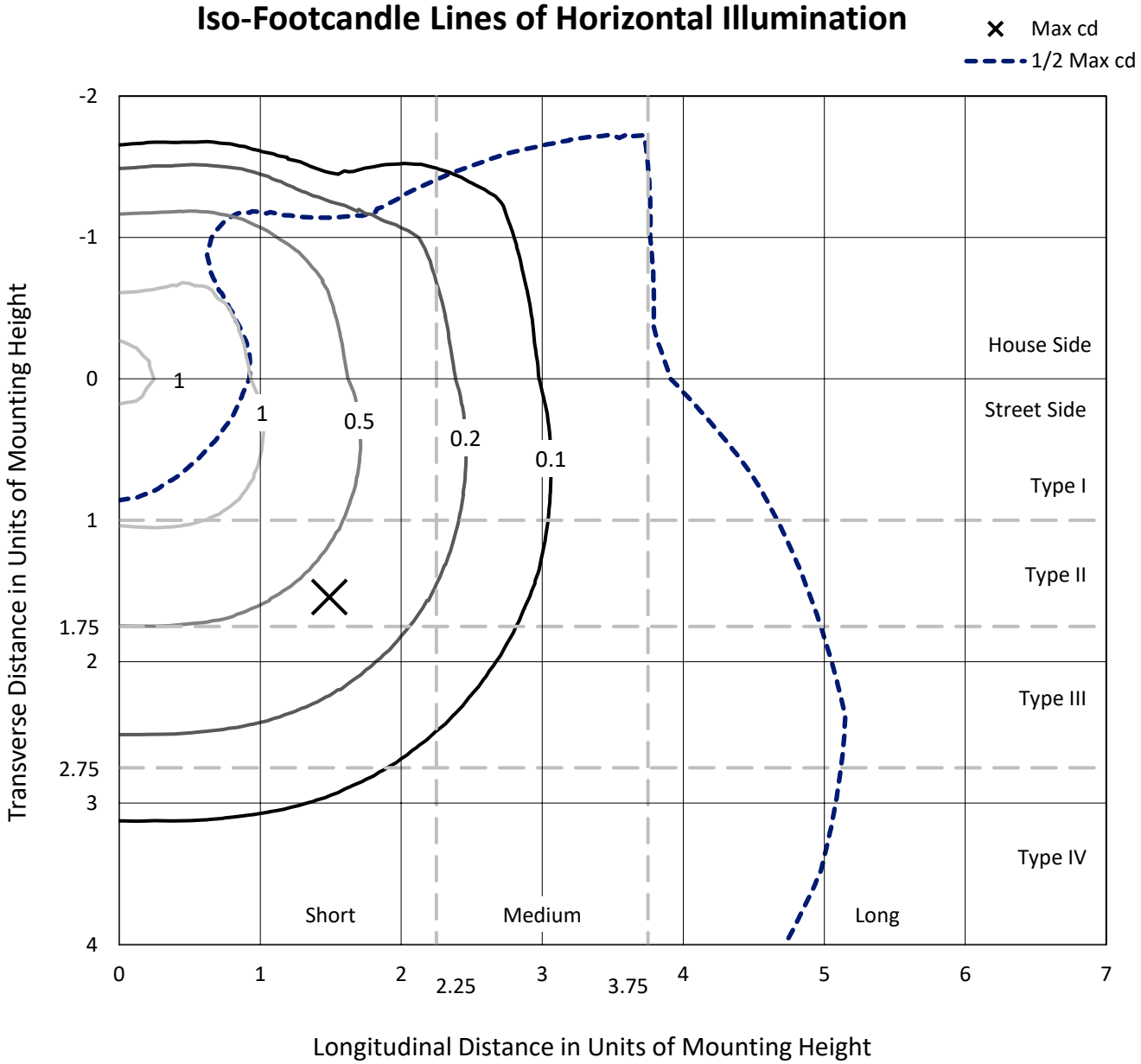
Input Watts (W):	28
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



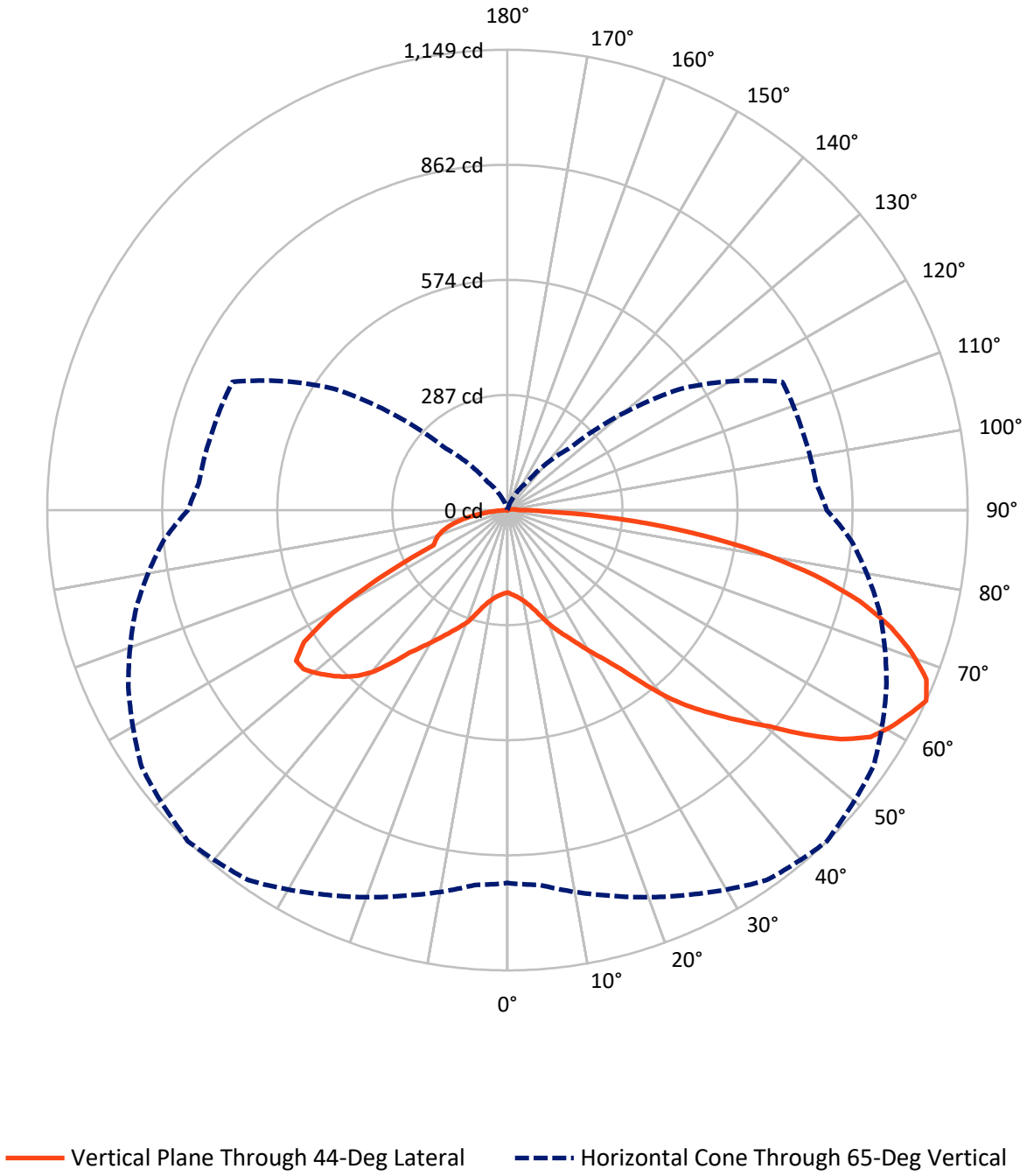
Based on 15 foot mounting height. Maximum calculated value = 1.2 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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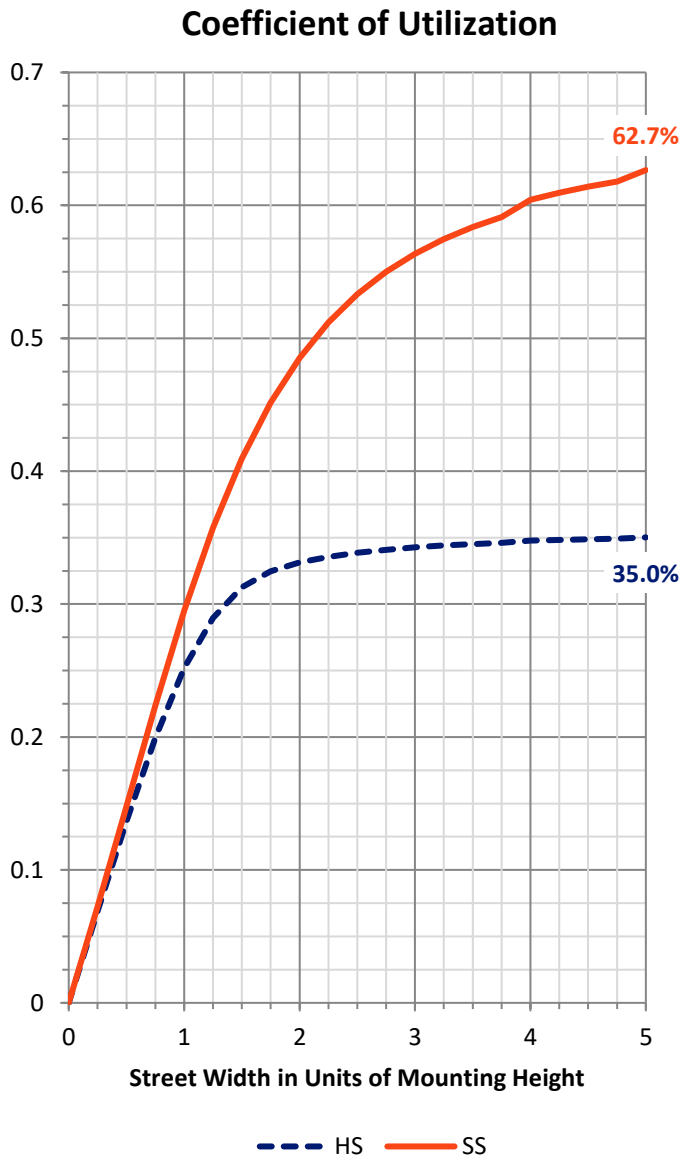
REPORT NUMBER: P821570
CATALOG NUMBER: TT-D1-750-12VDC-WQ-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1098.9	0.7	1099.6
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	2007.7	12.6	2020.3
	% Fixture	64.4	0.4	64.8
Total	Lumens	3106.6	13.3	3120.0
	% Fixture	99.6	0.4	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.9	0.7
10°-20°	74.1	2.4
20°-30°	158.8	5.1
30°-40°	287.6	9.2
40°-50°	479.9	15.4
50°-60°	664.7	21.3
60°-70°	688.9	22.1
70°-80°	554.4	17.8
80°-90°	177.3	5.7
90°-100°	9.0	0.3
100°-110°	2.9	0.1
110°-120°	0.6	0.0
120°-130°	0.3	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	3106.6	99.6
0°-180°	3120.0	100.0



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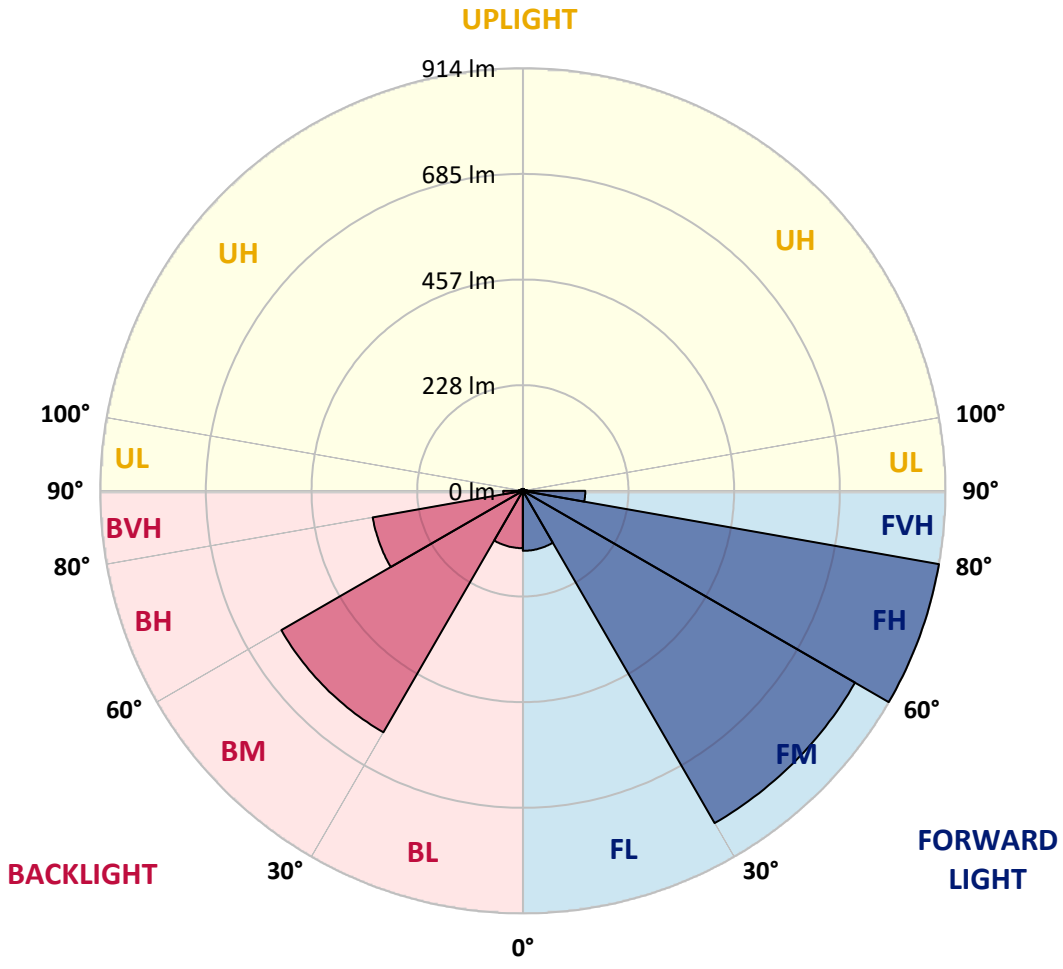
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	129.7	4.2			
FM	(30°-60°)	829.5	26.6			
FH	(60°-80°)	913.6	29.3			G1/1800
FVH	(80°-90°)	134.9	4.3			G2/225
BL	(0°-30°)	124.1	4.0	B1/500		
BM	(30°-60°)	602.8	19.3	B1/1000		
BH	(60°-80°)	329.7	10.6	B1/500		G1/500
BVH	(80°-90°)	42.4	1.4			G1/100
UL	(90°-100°)	9.0	0.3		U1/10	
UH	(100°-180°)	4.4	0.1		U1/10	

BUG Rating: B1-U1-G2
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	205.9	205.9	205.9	205.9	205.9	*205.9*	205.9	205.9	205.9	205.9	205.9
2.5°	212.0	211.4	211.4	210.8	210.8	*210.8*	210.8	210.8	210.1	209.5	208.9
5°	217.5	217.5	216.8	216.8	216.2	*215.6*	216.2	215.6	215.0	214.4	213.8
7.5°	224.8	224.2	224.2	222.9	222.9	*222.3*	222.3	222.3	221.7	220.5	219.9
10°	235.1	233.9	233.9	232.7	232.1	*231.5*	231.5	230.2	230.2	229.6	229.0
12.5°	246.7	245.5	246.7	246.1	244.9	*243.6*	243.6	242.4	241.8	241.2	238.8
15°	261.9	260.1	261.3	261.3	260.7	*260.1*	260.1	257.7	256.4	255.2	252.8
17.5°	280.2	279.0	279.6	280.2	282.0	*282.0*	282.6	279.6	277.1	272.9	271.1
20°	303.3	302.7	304.6	304.6	306.4	*306.4*	307.0	303.9	299.7	296.6	293.0
22.5°	325.9	325.9	328.3	328.3	330.1	*328.9*	328.9	327.7	322.8	319.2	315.5
25°	349.0	348.4	350.8	352.7	355.1	*352.1*	353.3	351.5	346.6	341.7	336.8
27.5°	374.6	373.4	374.6	377.0	381.3	*378.9*	380.1	377.0	372.2	365.5	361.2
30°	402.6	400.8	402.6	406.3	409.3	*410.5*	409.9	405.7	401.4	391.7	388.6
32.5°	430.0	430.0	434.3	441.0	444.6	*444.0*	444.6	441.0	434.9	422.7	415.4
35°	463.5	466.0	471.4	481.2	489.1	*486.1*	486.1	484.8	474.5	459.9	450.1
37.5°	508.0	510.4	521.4	533.0	547.6	*546.4*	547.0	543.3	523.2	508.0	494.0
40°	559.8	562.2	578.7	595.1	609.1	*613.4*	614.0	606.1	584.1	562.2	540.3
42.5°	607.3	610.3	627.4	650.5	665.8	*672.5*	673.7	660.9	637.7	612.8	585.4
45°	654.8	658.4	677.9	702.3	724.2	*727.3*	727.9	716.9	691.3	662.7	627.4
47.5°	703.5	706.6	726.7	755.9	779.7	*785.7*	786.4	776.0	744.9	710.2	668.8
50°	748.0	754.1	781.5	812.5	844.2	*849.1*	849.7	838.1	801.6	762.6	707.8
52.5°	800.4	803.4	832.6	884.4	911.2	*930.1*	930.7	908.2	869.2	816.8	746.2
55°	861.3	866.8	896.6	948.4	996.5	*1009.3*	1012.9	986.1	934.4	877.7	794.9
57.5°	896.6	907.0	950.8	1000.2	1060.5	*1069.0*	1070.8	1042.8	985.5	923.4	831.4
60°	915.5	921.6	967.9	1044.6	1091.5	*1099.4*	1098.8	1077.5	1020.3	944.7	848.5
62.5°	936.8	947.2	986.1	1064.1	1104.9	*1124.4*	1121.4	1099.4	1041.0	958.1	864.9
65°	*930.7*	*939.2*	*996.5*	*1059.8*	*1127.5*	*1148.8*	*1144.5*	*1115.3*	*1044.0*	*960.6*	*860.7*
67.5°	906.3	913.0	969.7	1048.3	1112.8	*1128.1*	1135.4	1106.7	1027.0	934.4	833.9
70°	856.4	866.8	921.6	1002.0	1061.1	*1072.0*	1073.2	1055.6	983.7	886.2	789.4
72.5°	787.6	796.1	855.8	937.4	988.6	*1001.4*	1002.6	975.8	921.6	820.5	725.4
75°	705.3	713.3	759.6	844.8	895.4	*908.2*	907.0	882.0	824.7	729.1	640.8
77.5°	603.6	618.2	659.1	729.1	778.4	*785.1*	786.4	758.9	712.7	629.8	543.9
80°	476.3	490.3	536.6	589.0	630.4	*635.9*	637.7	614.6	572.6	499.5	426.4
82.5°	338.7	350.8	387.4	430.0	464.7	*464.7*	466.0	447.1	414.8	352.1	294.8
85°	193.1	202.2	226.6	257.0	282.0	*279.0*	279.6	262.5	241.2	192.5	155.9
87.5°	63.3	67.6	73.1	84.7	96.2	*88.9*	92.6	76.7	69.4	51.8	40.2
90°	33.5	33.5	32.3	31.1	28.6	*25.0*	25.0	20.1	15.2	9.7	3.7
92.5°	30.5	30.5	29.2	28.0	25.6	*22.5*	22.5	18.3	13.4	8.5	3.0
95°	25.0	25.0	24.4	23.1	21.3	*18.9*	18.3	15.2	11.6	6.7	2.4
97.5°	19.5	19.5	18.9	18.3	16.4	*14.6*	14.6	11.6	8.5	5.5	1.8
100°	14.6	14.6	14.6	13.4	12.8	*11.0*	11.0	9.1	6.7	4.3	1.2
102.5°	10.4	11.0	10.4	9.7	9.1	*7.9*	7.9	6.7	4.9	3.0	1.2
105°	7.3	7.3	6.7	6.7	6.1	*5.5*	5.5	4.3	3.0	1.8	0.6
107.5°	4.3	4.3	4.3	4.3	3.7	*3.7*	3.7	3.0	1.8	1.2	0.6
110°	2.4	2.4	2.4	2.4	1.8	*1.8*	1.8	1.2	1.2	0.6	0.6

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
112.5°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	0.6	0.6	0.6	0.6
115°	0.6	0.6	0.6	1.2	0.6	*0.6*	0.6	0.6	0.6	0.6	0.6
117.5°	0.6	0.6	0.6	0.6	0.6	*0.6*	0.6	0.6	0.6	0.6	0.6
120°	0.0	0.0	0.6	0.6	0.6	*0.6*	0.6	0.6	0.6	0.6	0.6
122.5°	0.0	0.0	0.6	0.6	0.6	*0.6*	0.6	0.6	0.6	0.6	0.6
125°	0.0	0.0	0.6	0.6	0.6	*0.6*	0.6	0.6	0.6	0.6	0.6
127.5°	0.0	0.0	0.0	0.6	0.6	*0.6*	0.6	0.6	0.6	0.6	0.6
130°	0.0	0.0	0.0	0.6	0.6	*0.6*	0.6	0.6	0.6	0.6	0.6
132.5°	0.0	0.0	0.0	0.6	0.6	*0.6*	0.6	0.6	0.6	0.6	0.6
135°	0.0	0.0	0.0	0.0	0.6	*0.6*	0.6	0.6	0.6	0.6	0.6
137.5°	0.0	0.0	0.0	0.0	0.0	*0.0*	0.6	0.6	0.6	0.6	0.6
140°	0.6	0.6	0.0	0.0	0.0	*0.0*	0.6	0.6	0.6	0.6	0.6
142.5°	0.6	0.6	0.6	0.0	0.0	*0.6*	0.6	0.6	0.6	0.6	0.6
145°	0.6	0.6	0.0	0.0	0.0	*0.0*	0.0	0.6	0.6	0.6	0.6
147.5°	0.6	0.6	0.6	0.0	0.0	*0.6*	0.6	0.6	0.6	0.6	0.6
150°	0.6	0.6	0.0	0.0	0.0	*0.0*	0.6	0.6	0.6	0.6	0.6
152.5°	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.6	0.6	0.6	0.6
155°	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0	0.6	0.6	0.6
157.5°	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.6	0.6	0.6	0.6
160°	0.6	0.0	0.0	0.0	0.0	*0.0*	0.0	0.6	0.6	0.6	0.6
162.5°	0.6	0.6	0.0	0.0	0.0	*0.0*	0.0	0.6	0.6	0.6	0.6
165°	0.6	0.0	0.0	0.0	0.0	*0.0*	0.6	0.6	0.6	0.6	0.6
167.5°	0.6	0.6	0.0	0.0	0.0	*0.0*	0.6	0.6	0.6	0.6	0.6
170°	0.6	0.0	0.0	0.0	0.0	*0.6*	0.0	0.6	0.6	0.6	0.6
172.5°	0.6	0.6	0.0	0.0	0.0	*0.0*	0.6	0.6	0.6	0.6	0.6
175°	0.6	0.6	0.6	0.0	0.0	*0.0*	0.6	0.6	0.6	0.6	0.6
177.5°	0.0	0.6	0.0	0.0	0.0	*0.0*	0.0	0.6	0.6	0.6	0.6
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°	205.9	205.9	205.9	205.9	205.9	205.9	205.9	205.9	205.9	205.9	205.9
2.5°	208.9	208.9	208.3	207.7	207.7	207.7	207.1	207.1	207.1	206.5	206.5
5°	213.8	213.2	213.2	212.6	212.6	212.0	212.0	211.4	210.8	210.8	210.1
7.5°	220.5	219.9	218.7	219.3	218.1	217.5	216.8	216.8	216.8	216.2	216.2
10°	228.4	228.4	227.2	227.2	226.0	225.4	224.8	224.8	225.4	225.4	224.8
12.5°	238.8	238.2	238.2	237.6	236.9	236.3	236.9	236.9	236.3	235.7	235.1
15°	251.6	251.6	251.6	252.2	251.6	251.6	251.6	251.0	249.7	248.5	248.5
17.5°	271.1	270.4	269.2	269.8	271.1	272.9	271.1	269.2	267.4	267.4	266.8
20°	291.2	291.8	291.8	292.4	294.2	296.0	293.6	292.4	291.2	289.9	288.7
22.5°	313.1	313.7	313.7	313.1	314.3	313.7	312.5	311.3	310.0	308.2	307.0
25°	334.4	335.0	334.4	333.8	334.4	332.6	330.7	328.9	325.9	322.8	322.8
27.5°	358.2	357.5	355.1	355.7	354.5	353.3	349.6	345.4	341.1	338.1	338.1
30°	383.1	383.1	378.3	380.7	378.3	377.6	369.7	364.2	358.2	353.9	353.3
32.5°	410.5	409.3	405.7	408.1	405.7	403.2	393.5	386.2	375.8	369.7	369.1
35°	443.4	440.4	437.3	439.8	439.8	433.1	423.3	409.9	395.3	388.0	387.4
37.5°	483.6	481.8	478.1	481.2	483.6	476.9	462.3	442.8	422.1	411.1	410.5
40°	528.1	525.7	523.8	528.1	529.9	523.2	503.7	476.3	448.3	432.5	430.0
42.5°	570.1	564.6	561.6	567.7	565.9	558.6	531.7	500.1	461.7	443.4	440.4
45°	607.9	601.8	597.5	603.0	600.6	586.0	556.1	513.5	467.2	444.6	441.0
47.5°	645.0	635.9	629.2	636.5	631.6	609.1	572.6	520.2	461.1	434.3	428.2
50°	676.7	665.8	661.5	670.0	662.7	631.0	584.1	517.1	445.9	406.9	397.1
52.5°	714.5	698.0	693.8	710.2	693.8	651.7	586.6	509.8	411.1	364.2	355.1
55°	752.9	734.6	727.9	743.1	718.1	656.0	574.4	467.8	358.8	308.8	295.4
57.5°	773.0	755.9	749.8	760.8	714.5	614.6	520.2	389.8	280.2	224.2	209.5
60°	791.2	761.4	753.5	768.1	676.7	518.3	402.6	279.6	169.3	127.3	116.3
62.5°	804.0	775.4	758.9	765.6	607.3	377.0	231.5	134.6	64.0	44.5	43.9
65°	*797.3*	*773.0*	*762.0*	*757.1*	*527.5*	*216.8*	*85.3*	*34.1*	*1.8*	*1.8*	*1.2*
67.5°	776.6	749.8	746.8	751.0	522.0	208.3	79.2	31.1	0.0	0.0	0.0
70°	730.9	712.0	712.0	726.7	498.2	197.4	73.7	28.6	0.0	0.0	0.0
72.5°	669.4	654.8	663.3	685.2	462.9	182.1	66.4	25.6	0.0	0.0	0.0
75°	595.7	580.5	591.4	615.8	419.1	162.6	57.9	21.9	0.0	0.0	0.0
77.5°	501.9	491.5	508.6	531.1	360.6	137.0	47.5	17.7	0.0	0.0	0.0
80°	391.0	385.6	408.1	428.2	291.2	107.8	35.9	12.8	0.0	0.0	0.0
82.5°	269.8	267.4	289.3	310.0	208.3	75.5	24.4	8.5	0.0	0.0	0.0
85°	141.3	141.3	158.4	177.2	116.3	40.8	12.2	3.7	0.0	0.0	0.0
87.5°	31.1	29.8	32.3	41.4	23.1	7.9	1.8	0.6	0.0	0.0	0.0
90°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
105°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.6	0.6	0.6	0.6	0.6	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

Scaled Data Report

REPORT NUMBER: P821570
CATALOG NUMBER: TT-D1-750-12VDC-WQ-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
117.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
122.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
125°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.6	0.6	0.6	0.0	0.0	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: SP1-2407-176-6

Test Date: 09/26/2024

Luminaire Tested: MEM2-HTN-VA-30-750-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-750-U-WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

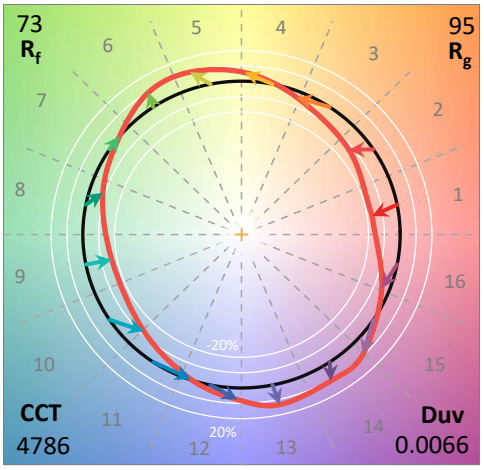
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-6
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-30-750-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	4786
CIE u':	0.2093
CIE v':	0.4953
Duv:	0.0066
CIE x:	0.3533
CIE y:	0.3716
CIE z:	0.2751
Peak Wavelength (nm):	449
Dominant Wavelength (nm):	570
Purity:	17.53512
Rf:	73
Rg:	94.6

CRI (Ra):	70.9				
R1:	67.8	R9:	-29.8		
R2:	75.1	R10:	40.9		
R3:	80.6	R11:	67.4		
R4:	71.6	R12:	35.3		
R5:	67.8	R13:	68.5		
R6:	65.4	R14:	89.0		
R7:	82.0	R15:	60.9		
R8:	57.0				



Test Conditions

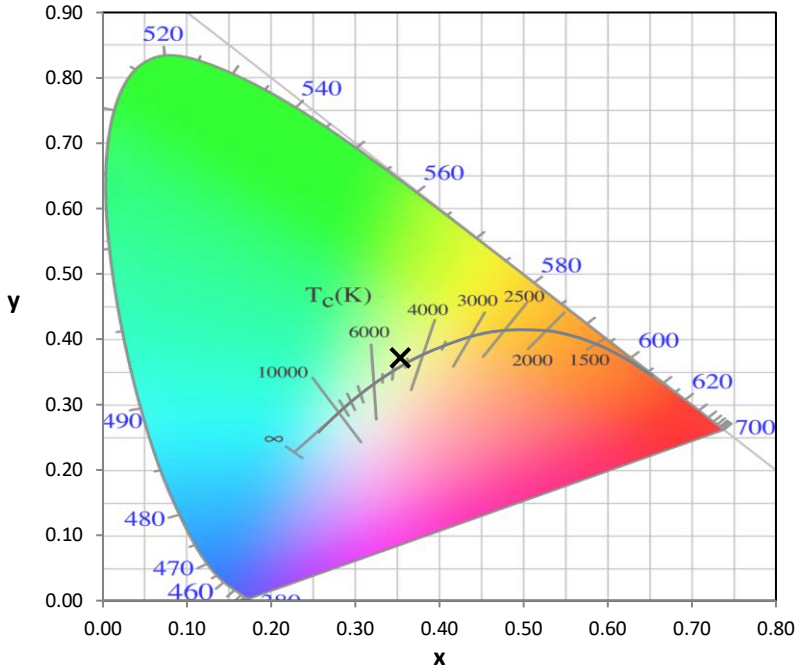
Stabilization Time:	45M
Operation Time:	1H 45M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-6

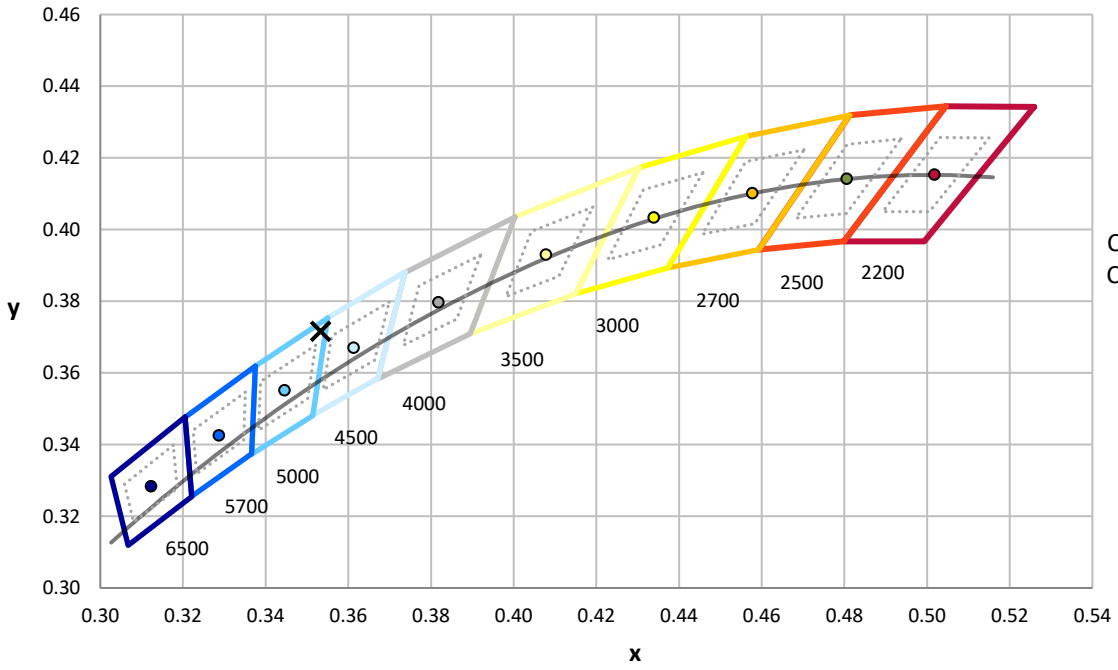
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-176-6

CIE 1931 Chromaticity Diagram



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

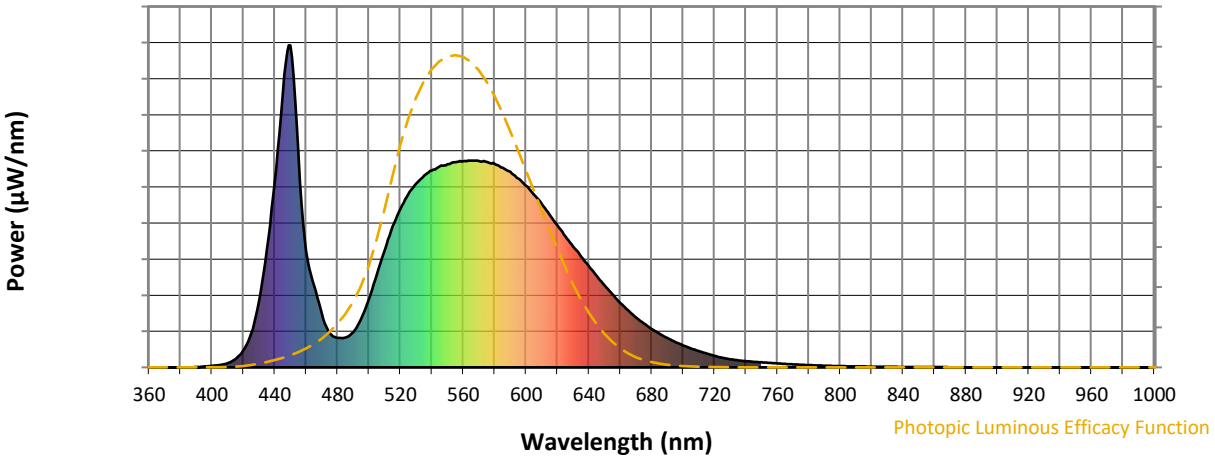


CCT = 4786K
CIE x = 0.3533
CIE y = 0.3716
Duv = 0.0066

Point lies inside the ANSI 5000K 7-step quadrangle

REPORT NUMBER: SP1-2407-176-6

Photopic Flux vs. Wavelength

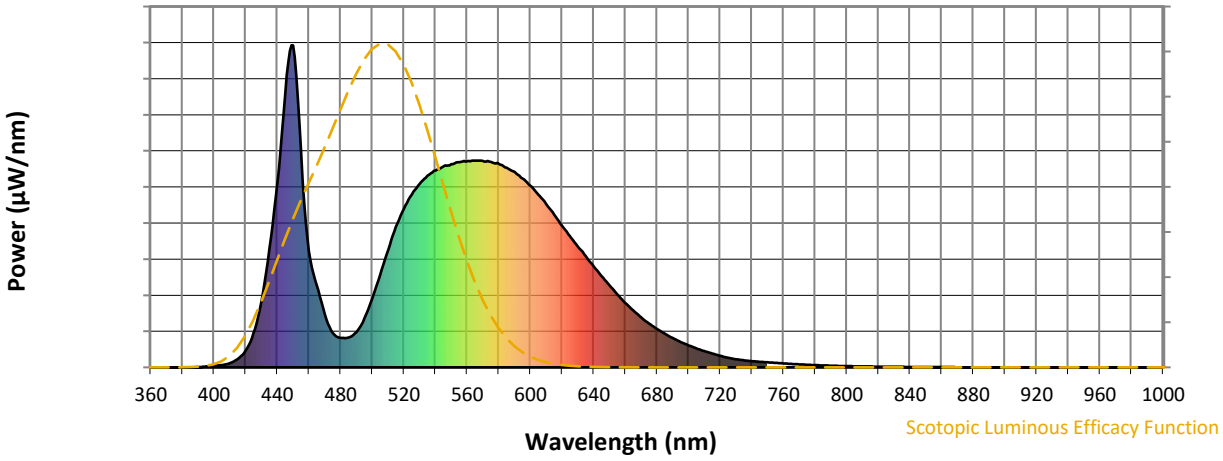


Photopic Lumens: NR

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	110	NR	620	440	NR	750	16	NR	880	0	NR
365	0	NR	495	150	NR	625	407	NR	755	14	NR	885	0	NR
370	0	NR	500	213	NR	630	375	NR	760	12	NR	890	0	NR
375	0	NR	505	288	NR	635	345	NR	765	11	NR	895	0	NR
380	0	NR	510	364	NR	640	314	NR	770	9	NR	900	0	NR
385	0	NR	515	436	NR	645	283	NR	775	8	NR	905	0	NR
390	1	NR	520	492	NR	650	254	NR	780	7	NR	910	0	NR
395	3	NR	525	537	NR	655	227	NR	785	6	NR	915	0	NR
400	5	NR	530	570	NR	660	200	NR	790	5	NR	920	0	NR
405	7	NR	535	595	NR	665	177	NR	795	4	NR	925	0	NR
410	13	NR	540	611	NR	670	155	NR	800	4	NR	930	0	NR
415	25	NR	545	624	NR	675	136	NR	805	3	NR	935	0	NR
420	52	NR	550	631	NR	680	119	NR	810	3	NR	940	0	NR
425	106	NR	555	637	NR	685	104	NR	815	3	NR	945	0	NR
430	204	NR	560	640	NR	690	91	NR	820	2	NR	950	0	NR
435	369	NR	565	642	NR	695	79	NR	825	2	NR	955	0	NR
440	573	NR	570	641	NR	700	68	NR	830	2	NR	960	0	NR
445	844	NR	575	638	NR	705	59	NR	835	2	NR	965	0	NR
450	999	NR	580	632	NR	710	50	NR	840	1	NR	970	0	NR
455	668	NR	585	620	NR	715	43	NR	845	1	NR	975	0	NR
460	361	NR	590	607	NR	720	36	NR	850	1	NR	980	0	NR
465	255	NR	595	586	NR	725	30	NR	855	1	NR	985	0	NR
470	165	NR	600	564	NR	730	25	NR	860	1	NR	990	0	NR
475	106	NR	605	537	NR	735	22	NR	865	1	NR	995	0	NR
480	91	NR	610	507	NR	740	19	NR	870	0	NR	1000	0	NR
485	93	NR	615	474	NR	745	17	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-6

Scotopic Flux vs. Wavelength

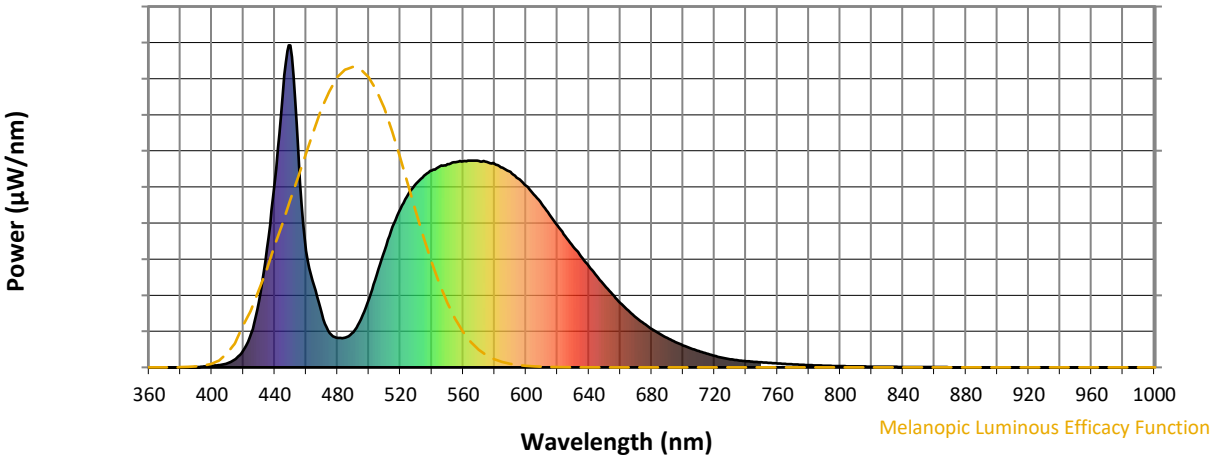


Scotopic Lumens: NR **S/P: 1.69**

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	110	NR	620	440	NR	750	16	NR	880	0	NR
365	0	NR	495	150	NR	625	407	NR	755	14	NR	885	0	NR
370	0	NR	500	213	NR	630	375	NR	760	12	NR	890	0	NR
375	0	NR	505	288	NR	635	345	NR	765	11	NR	895	0	NR
380	0	NR	510	364	NR	640	314	NR	770	9	NR	900	0	NR
385	0	NR	515	436	NR	645	283	NR	775	8	NR	905	0	NR
390	1	NR	520	492	NR	650	254	NR	780	7	NR	910	0	NR
395	3	NR	525	537	NR	655	227	NR	785	6	NR	915	0	NR
400	5	NR	530	570	NR	660	200	NR	790	5	NR	920	0	NR
405	7	NR	535	595	NR	665	177	NR	795	4	NR	925	0	NR
410	13	NR	540	611	NR	670	155	NR	800	4	NR	930	0	NR
415	25	NR	545	624	NR	675	136	NR	805	3	NR	935	0	NR
420	52	NR	550	631	NR	680	119	NR	810	3	NR	940	0	NR
425	106	NR	555	637	NR	685	104	NR	815	3	NR	945	0	NR
430	204	NR	560	640	NR	690	91	NR	820	2	NR	950	0	NR
435	369	NR	565	642	NR	695	79	NR	825	2	NR	955	0	NR
440	573	NR	570	641	NR	700	68	NR	830	2	NR	960	0	NR
445	844	NR	575	638	NR	705	59	NR	835	2	NR	965	0	NR
450	999	NR	580	632	NR	710	50	NR	840	1	NR	970	0	NR
455	668	NR	585	620	NR	715	43	NR	845	1	NR	975	0	NR
460	361	NR	590	607	NR	720	36	NR	850	1	NR	980	0	NR
465	255	NR	595	586	NR	725	30	NR	855	1	NR	985	0	NR
470	165	NR	600	564	NR	730	25	NR	860	1	NR	990	0	NR
475	106	NR	605	537	NR	735	22	NR	865	1	NR	995	0	NR
480	91	NR	610	507	NR	740	19	NR	870	0	NR	1000	0	NR
485	93	NR	615	474	NR	745	17	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-6

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.36**

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	110	NR	620	440	NR	750	16	NR	880	0	NR
365	0	NR	495	150	NR	625	407	NR	755	14	NR	885	0	NR
370	0	NR	500	213	NR	630	375	NR	760	12	NR	890	0	NR
375	0	NR	505	288	NR	635	345	NR	765	11	NR	895	0	NR
380	0	NR	510	364	NR	640	314	NR	770	9	NR	900	0	NR
385	0	NR	515	436	NR	645	283	NR	775	8	NR	905	0	NR
390	1	NR	520	492	NR	650	254	NR	780	7	NR	910	0	NR
395	3	NR	525	537	NR	655	227	NR	785	6	NR	915	0	NR
400	5	NR	530	570	NR	660	200	NR	790	5	NR	920	0	NR
405	7	NR	535	595	NR	665	177	NR	795	4	NR	925	0	NR
410	13	NR	540	611	NR	670	155	NR	800	4	NR	930	0	NR
415	25	NR	545	624	NR	675	136	NR	805	3	NR	935	0	NR
420	52	NR	550	631	NR	680	119	NR	810	3	NR	940	0	NR
425	106	NR	555	637	NR	685	104	NR	815	3	NR	945	0	NR
430	204	NR	560	640	NR	690	91	NR	820	2	NR	950	0	NR
435	369	NR	565	642	NR	695	79	NR	825	2	NR	955	0	NR
440	573	NR	570	641	NR	700	68	NR	830	2	NR	960	0	NR
445	844	NR	575	638	NR	705	59	NR	835	2	NR	965	0	NR
450	999	NR	580	632	NR	710	50	NR	840	1	NR	970	0	NR
455	668	NR	585	620	NR	715	43	NR	845	1	NR	975	0	NR
460	361	NR	590	607	NR	720	36	NR	850	1	NR	980	0	NR
465	255	NR	595	586	NR	725	30	NR	855	1	NR	985	0	NR
470	165	NR	600	564	NR	730	25	NR	860	1	NR	990	0	NR
475	106	NR	605	537	NR	735	22	NR	865	1	NR	995	0	NR
480	91	NR	610	507	NR	740	19	NR	870	0	NR	1000	0	NR
485	93	NR	615	474	NR	745	17	NR	875	0	NR			

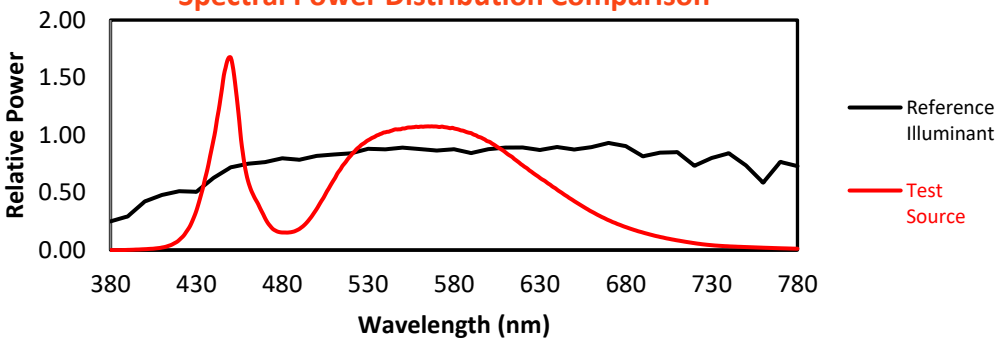
REPORT NUMBER: SP1-2407-176-6

TM-30-18

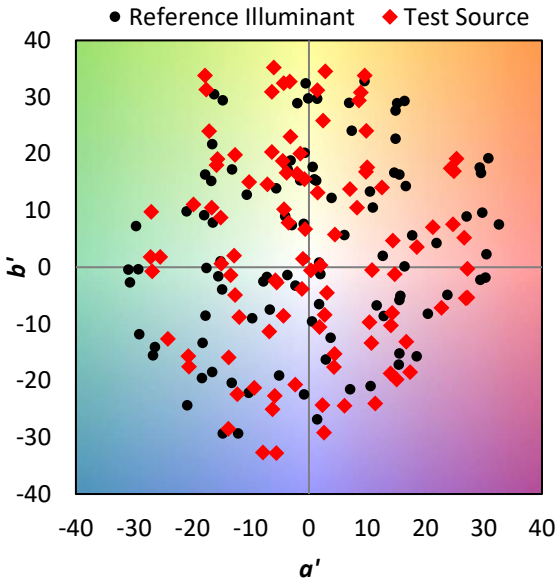
Summary

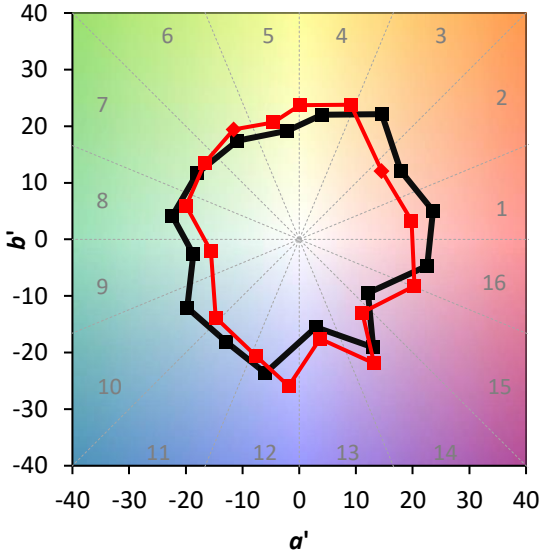
R_f = 73
R_g = 94.6
CIE R_a = 70.9
R_9 = -29.8

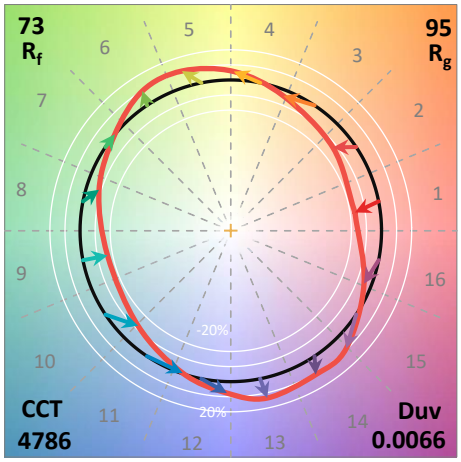
Spectral Power Distribution Comparison

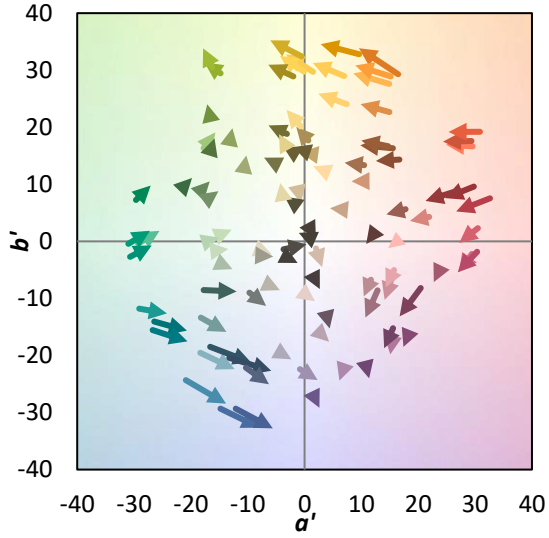


Color Vector Graphics







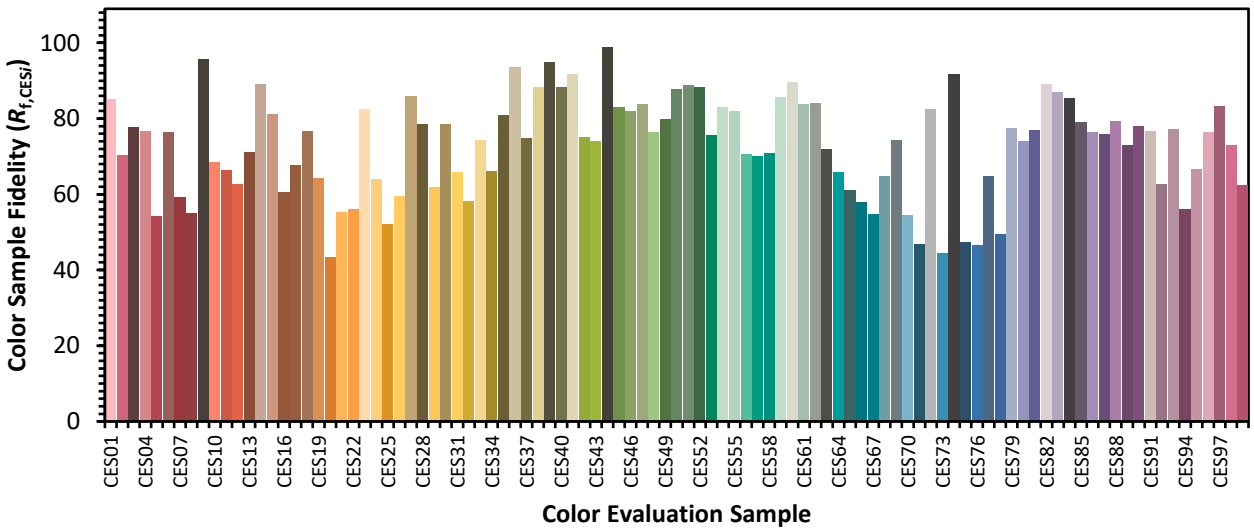


REPORT NUMBER: SP1-2407-176-6

TM-30-18

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

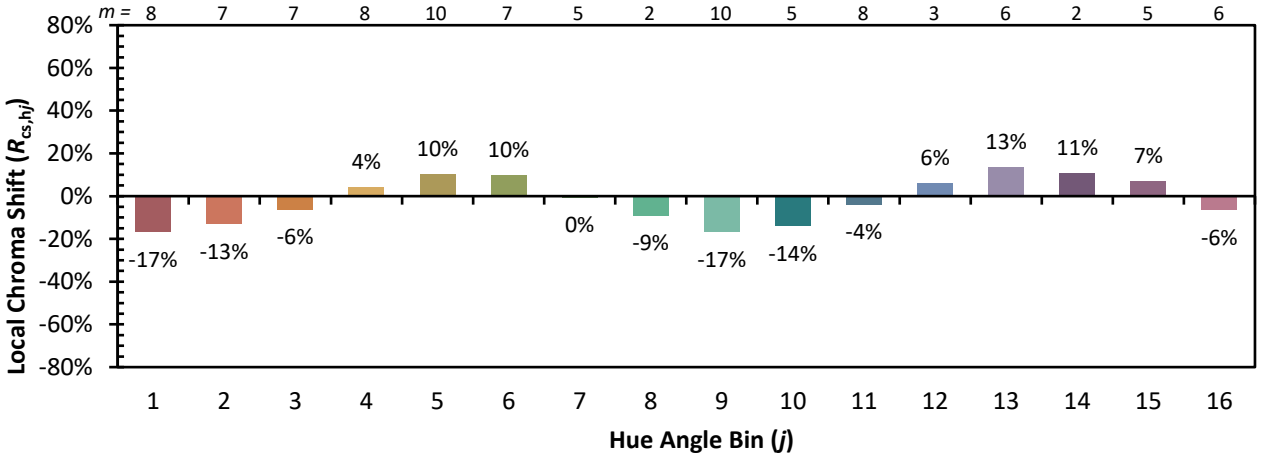
CES01 = 85	CES26 = 60	CES51 = 89	CES76 = 46
CES02 = 59	CES27 = 86	CES52 = 88	CES77 = 65
CES03 = 30	CES28 = 78	CES53 = 76	CES78 = 49
CES04 = 69	CES29 = 62	CES54 = 83	CES79 = 78
CES05 = 46	CES30 = 79	CES55 = 82	CES80 = 74
CES06 = 50	CES31 = 66	CES56 = 71	CES81 = 77
CES07 = 39	CES32 = 58	CES57 = 70	CES82 = 89
CES08 = 38	CES33 = 74	CES58 = 71	CES83 = 87
CES09 = 29	CES34 = 66	CES59 = 86	CES84 = 86
CES10 = 72	CES35 = 81	CES60 = 90	CES85 = 79
CES11 = 56	CES36 = 94	CES61 = 84	CES86 = 76
CES12 = 61	CES37 = 75	CES62 = 84	CES87 = 76
CES13 = 41	CES38 = 88	CES63 = 72	CES88 = 79
CES14 = 74	CES39 = 95	CES64 = 66	CES89 = 73
CES15 = 70	CES40 = 88	CES65 = 61	CES90 = 78
CES16 = 46	CES41 = 92	CES66 = 58	CES91 = 77
CES17 = 49	CES42 = 75	CES67 = 55	CES92 = 63
CES18 = 55	CES43 = 74	CES68 = 65	CES93 = 77
CES19 = 71	CES44 = 99	CES69 = 74	CES94 = 56
CES20 = 64	CES45 = 83	CES70 = 55	CES95 = 67
CES21 = 85	CES46 = 82	CES71 = 47	CES96 = 76
CES22 = 77	CES47 = 84	CES72 = 82	CES97 = 83
CES23 = 91	CES48 = 76	CES73 = 44	CES98 = 73
CES24 = 90	CES49 = 80	CES74 = 92	CES99 = 62
CES25 = 71	CES50 = 88	CES75 = 47	

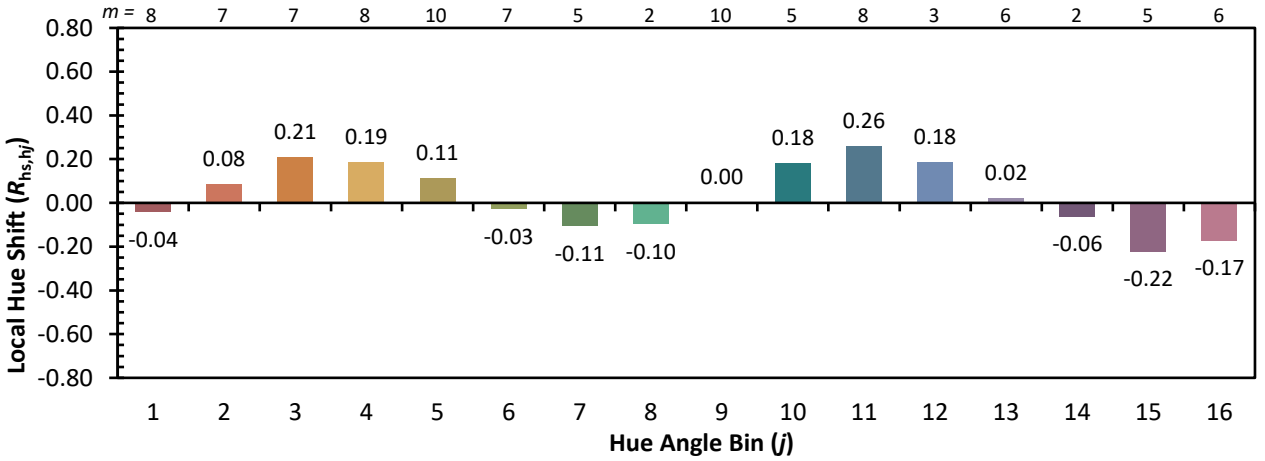


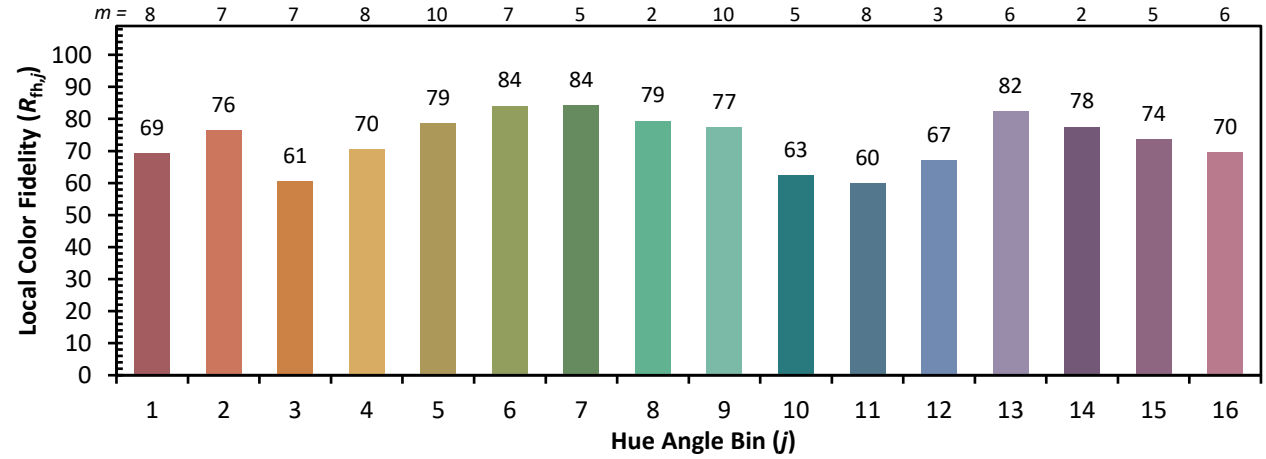
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Color Rendition by Hue-Angle Bin



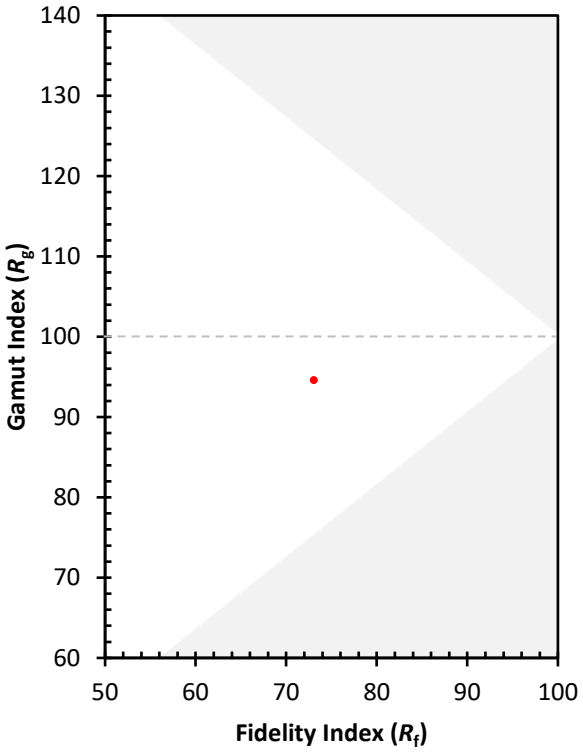


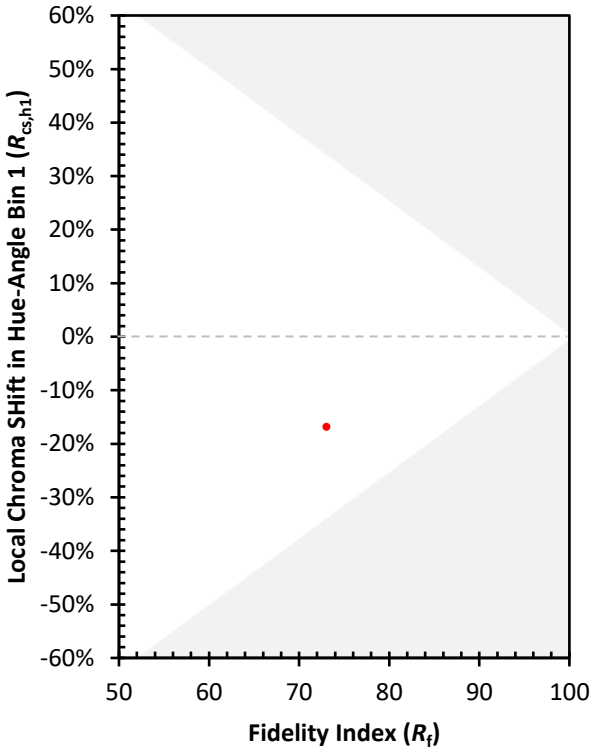


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Measure Comparisons





(END OF REPORT)