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: P821283

Luminaire Tested: **TT-D2-740-24VDC-MQ-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:	P821283
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-1)
Test Lab:	INNOVATION CENTER
Issue Date:	12/2/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D2-740-24VDC-MQ-HSS
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE
	4000K, 70 CRI LEDS AND MEDIUM DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4692.9 lumens
Efficiency:	N/A
Efficacy:	123.5 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U2 - G2

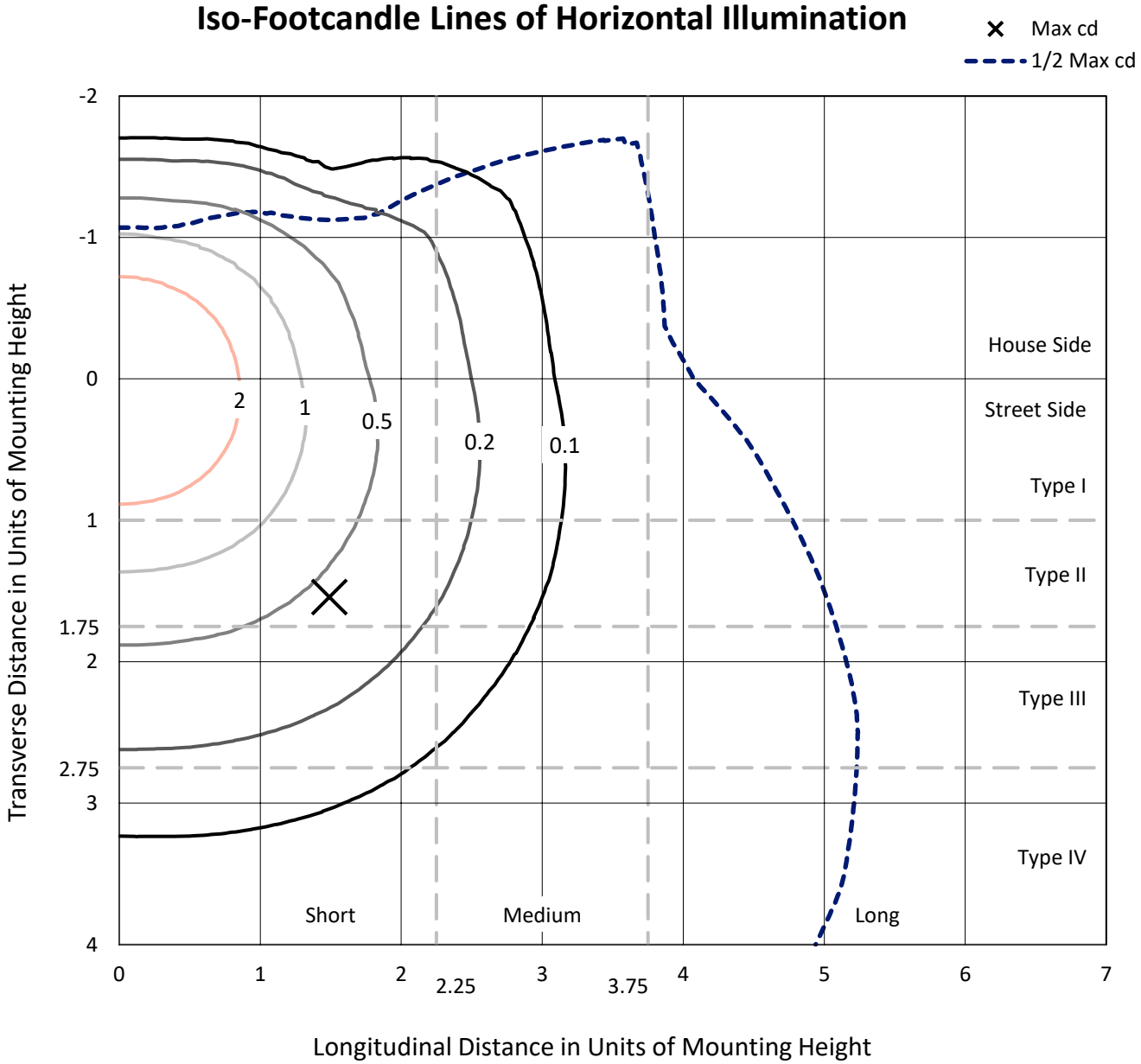
Input Watts (W):	38
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



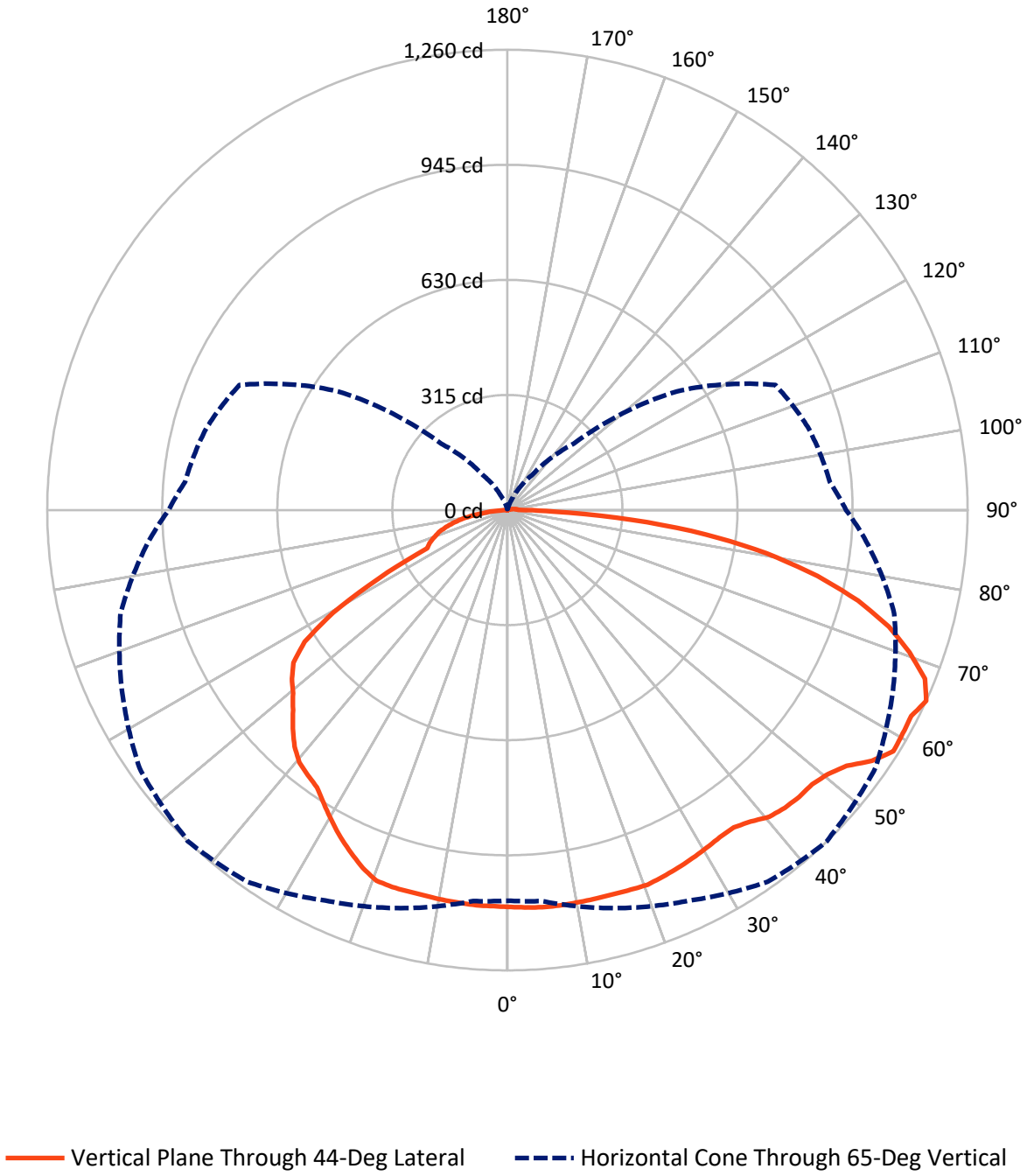
Based on 15 foot mounting height. Maximum calculated value = 4.8 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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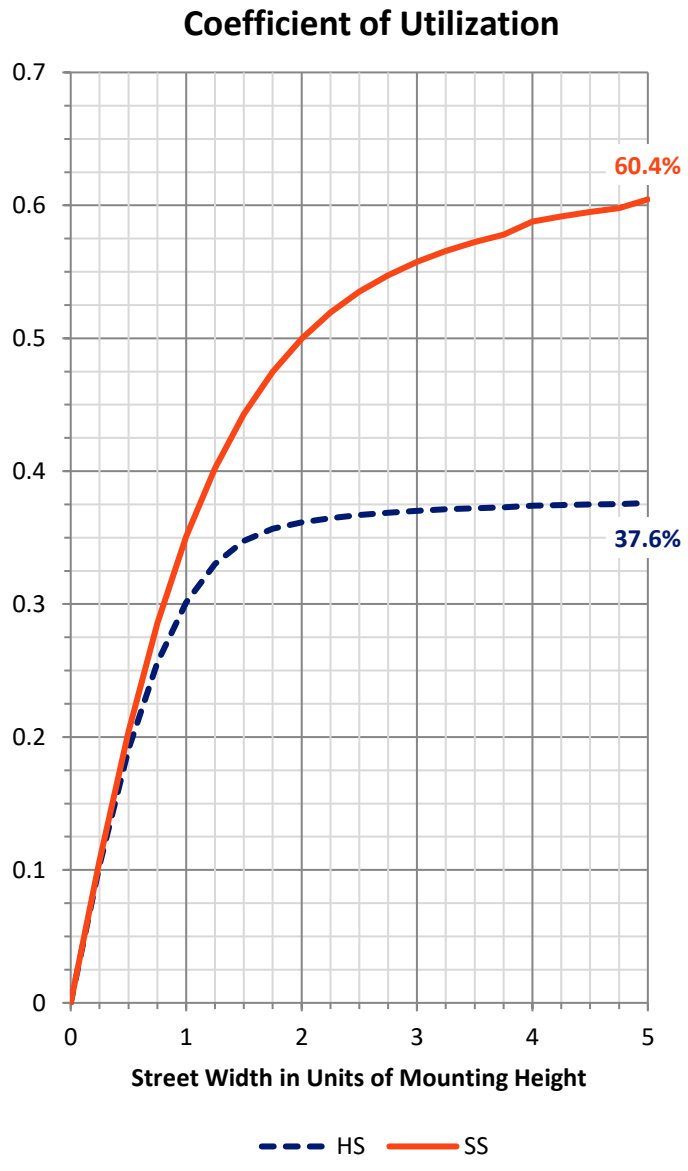
REPORT NUMBER: P821283
CATALOG NUMBER: TT-D2-740-24VDC-MQ-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1777.0	1.2	1778.2
	% Fixture	37.9	0.0	37.9
Street Side	Lumens	2898.9	15.9	2914.7
	% Fixture	61.8	0.3	62.1
Total	Lumens	4675.8	17.1	4692.9
	% Fixture	99.6	0.4	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.7	2.2
10°-20°	307.1	6.5
20°-30°	488.7	10.4
30°-40°	626.2	13.3
40°-50°	741.8	15.8
50°-60°	812.4	17.3
60°-70°	772.2	16.5
70°-80°	614.8	13.1
80°-90°	208.9	4.5
90°-100°	11.0	0.2
100°-110°	3.6	0.1
110°-120°	0.8	0.0
120°-130°	0.5	0.0
130°-140°	0.4	0.0
140°-150°	0.3	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	4675.8	99.6
0°-180°	4692.9	100.0



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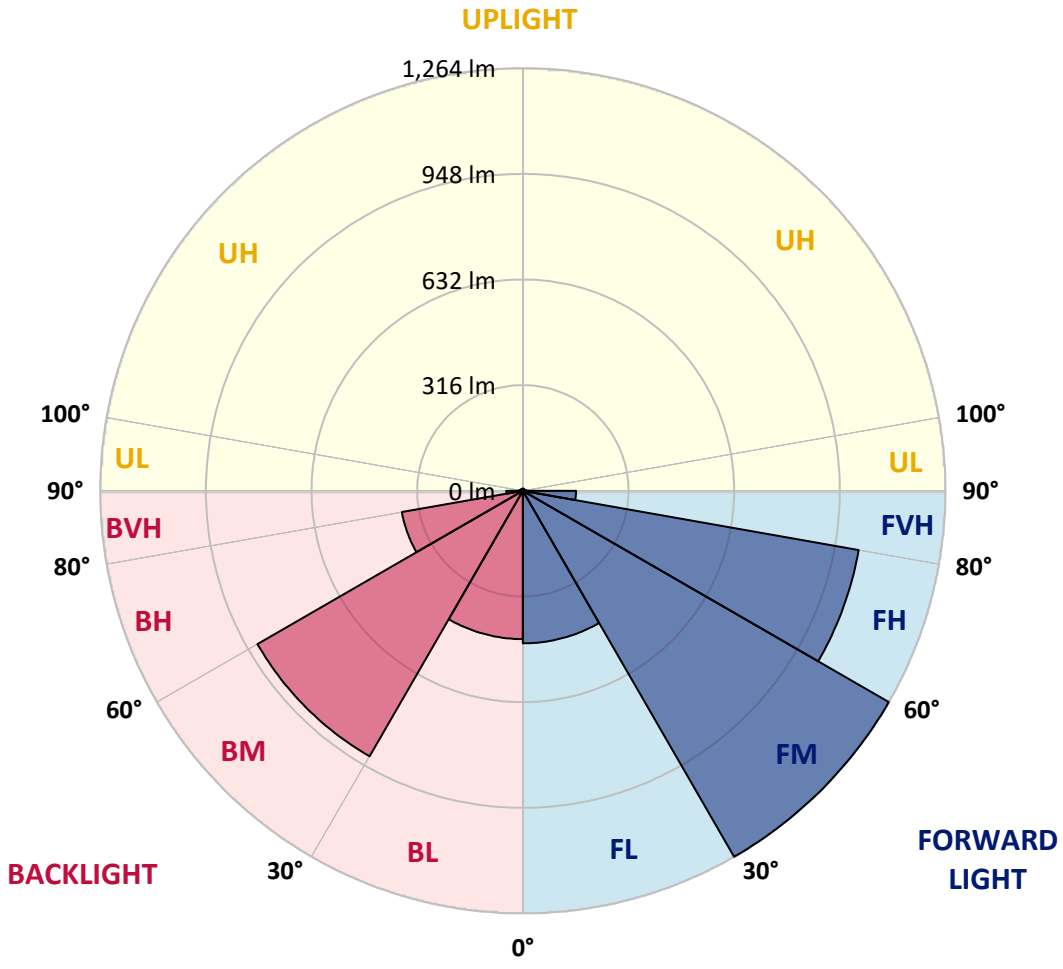
Scaled Data Report

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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°)	456.1	9.7			
FM	(30°-60°)	1263.8	26.9			
FH	(60°-80°)	1019.8	21.7			G1/1800
FVH	(80°-90°)	159.1	3.4			G2/225
BL	(0°-30°)	443.4	9.4	B1/500		
BM	(30°-60°)	916.6	19.5	B1/1000		
BH	(60°-80°)	367.2	7.8	B1/500		G1/500
BVH	(80°-90°)	49.8	1.1			G1/100
UL	(90°-100°)	11.0	0.2		U2/50	
UH	(100°-180°)	6.1	0.1		U1/10	

BUG Rating: B1-U2-G2
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1086.4	1086.4	1086.4	1086.4	1086.4	1086.4	1086.4	1086.4	1086.4	1086.4	1086.4
2.5°	1090.5	1089.7	1089.7	1089.7	1089.7	1088.9	1089.7	1088.1	1088.9	1086.4	1086.4
5°	1093.0	1091.4	1092.2	1092.2	1092.2	1091.4	1092.2	1089.7	1090.5	1087.2	1086.4
7.5°	1093.9	1093.0	1093.0	1093.0	1093.0	1091.4	1092.2	1090.5	1089.7	1087.2	1085.6
10°	1093.9	1093.0	1093.0	1093.0	1092.2	1090.5	1091.4	1088.9	1088.9	1085.6	1083.9
12.5°	1093.9	1093.0	1093.9	1092.2	1092.2	1090.5	1090.5	1088.1	1088.1	1083.9	1082.3
15°	1093.0	1092.2	1092.2	1093.0	1092.2	1090.5	1090.5	1088.1	1087.2	1082.3	1080.6
17.5°	1092.2	1091.4	1092.2	1093.0	1093.9	1092.2	1093.0	1088.9	1087.2	1082.3	1079.8
20°	1093.0	1092.2	1093.0	1094.7	1094.7	1094.7	1094.7	1090.5	1087.2	1082.3	1078.1
22.5°	1090.5	1090.5	1090.5	1090.5	1092.2	1089.7	1089.7	1087.2	1083.1	1078.9	1074.8
25°	1084.7	1084.7	1085.6	1086.4	1086.4	1084.7	1083.9	1081.4	1078.1	1073.1	1068.2
27.5°	1078.1	1078.1	1078.9	1078.9	1080.6	1078.9	1078.1	1074.8	1071.5	1065.7	1059.9
30°	1070.6	1070.6	1070.6	1072.3	1073.1	1073.1	1072.3	1068.2	1064.0	1057.4	1049.9
32.5°	1062.3	1062.3	1064.8	1066.5	1067.3	1067.3	1067.3	1062.3	1057.4	1049.1	1038.3
35°	1055.7	1055.7	1059.0	1064.8	1068.2	1066.5	1065.7	1062.3	1054.9	1045.8	1028.3
37.5°	1059.9	1059.9	1067.3	1075.6	1083.1	1081.4	1081.4	1075.6	1065.7	1050.7	1029.2
40°	1069.8	1070.6	1082.3	1093.0	1102.2	1103.8	1103.8	1097.2	1082.3	1063.2	1033.3
42.5°	1072.3	1074.0	1085.6	1101.3	1109.6	1113.8	1113.8	1104.6	1088.9	1066.5	1031.7
45°	1072.3	1073.1	1086.4	1103.0	1116.3	1119.6	1119.6	1109.6	1089.7	1068.2	1025.9
47.5°	1072.3	1071.5	1083.1	1106.3	1119.6	1122.1	1122.1	1111.3	1092.2	1064.8	1017.6
50°	1069.8	1074.0	1091.4	1109.6	1132.8	1136.2	1135.3	1123.7	1097.2	1069.0	1010.9
52.5°	1075.6	1074.8	1098.0	1134.5	1155.2	1162.7	1163.5	1148.6	1121.2	1080.6	1006.8
55°	1099.7	1100.5	1122.9	1165.2	1196.7	1210.8	1209.1	1190.1	1151.1	1103.8	1018.4
57.5°	1108.0	1116.3	1148.6	1185.1	1233.2	1245.6	1245.6	1222.4	1175.1	1122.1	1026.7
60°	1091.4	1094.7	1134.5	1196.7	1240.6	1243.1	1244.0	1227.4	1177.6	1112.1	1010.1
62.5°	1087.2	1093.9	1124.5	1194.2	1222.4	1240.6	1239.8	1217.4	1175.1	1104.6	1004.3
65°	1069.0	1074.0	1127.9	1179.3	1241.5	1259.7	1255.6	1229.9	1164.4	1096.3	986.1
67.5°	1031.7	1036.6	1086.4	1158.5	1214.9	1232.4	1236.5	1206.6	1138.6	1057.4	947.1
70°	969.5	976.9	1027.5	1098.0	1157.7	1167.7	1166.0	1147.8	1079.8	992.7	889.9
72.5°	882.4	894.0	957.9	1025.0	1076.4	1091.4	1084.7	1064.0	1008.4	914.7	811.9
75°	790.3	801.1	851.7	927.2	981.1	991.0	986.1	961.2	904.8	812.7	719.8
77.5°	690.0	699.1	742.2	819.4	859.2	867.5	869.9	836.8	783.7	700.8	617.8
80°	554.8	559.0	617.0	667.6	702.4	719.0	717.4	692.5	639.4	570.6	487.6
82.5°	409.7	413.0	457.8	500.9	532.4	547.3	539.1	514.2	471.9	413.0	350.0
85°	251.3	245.5	282.0	314.3	333.4	343.3	335.0	320.9	283.6	237.2	193.2
87.5°	90.4	85.4	102.0	107.0	128.5	125.2	132.7	107.0	86.2	61.4	43.1
90°	39.8	39.8	39.0	37.3	34.0	30.7	29.9	24.9	18.2	11.6	4.1
92.5°	36.5	36.5	35.7	34.0	30.7	27.4	27.4	22.4	16.6	10.8	4.1
95°	30.7	30.7	29.9	28.2	25.7	23.2	23.2	18.2	14.1	9.1	3.3
97.5°	24.1	24.1	23.2	22.4	19.9	18.2	18.2	14.9	10.8	6.6	2.5
100°	18.2	18.2	17.4	16.6	15.8	14.1	13.3	10.8	8.3	5.0	1.7
102.5°	13.3	13.3	13.3	12.4	10.8	10.0	10.0	8.3	5.8	4.1	1.7
105°	9.1	9.1	9.1	8.3	7.5	6.6	6.6	5.8	4.1	2.5	0.8
107.5°	5.8	5.8	5.8	5.8	5.0	4.1	4.1	3.3	2.5	1.7	0.8
110°	3.3	2.5	3.3	3.3	3.3	2.5	2.5	1.7	1.7	0.8	0.8

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
112.5°	1.7	1.7	1.7	1.7	1.7	*1.7*	1.7	0.8	0.8	0.8	0.8
115°	0.8	0.8	0.8	1.7	1.7	*0.8*	0.8	0.8	0.8	0.8	0.8
117.5°	0.0	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
120°	0.0	0.0	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
122.5°	0.0	0.0	0.0	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
125°	0.0	0.0	0.0	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
127.5°	0.0	0.0	0.0	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
130°	0.0	0.0	0.0	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
132.5°	0.0	0.0	0.0	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
135°	0.0	0.0	0.0	0.0	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
137.5°	0.0	0.0	0.0	0.0	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
140°	0.0	0.8	0.8	0.0	0.0	*0.8*	0.8	0.8	0.8	0.8	0.8
142.5°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
145°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
147.5°	0.8	0.8	0.0	0.0	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
150°	0.8	0.8	0.8	0.0	0.0	*0.8*	0.8	0.8	0.8	0.8	0.8
152.5°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
155°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
157.5°	0.8	0.8	0.8	0.0	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
160°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
162.5°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
165°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
167.5°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
170°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
172.5°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
175°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
177.5°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8
180°	0.8	0.8	0.8	0.8	0.8	*0.8*	0.8	0.8	0.8	0.8	0.8

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1086.4	1086.4	1086.4	1086.4	1086.4	1086.4	1086.4	1086.4	1086.4	1086.4	1086.4
2.5°	1086.4	1085.6	1084.7	1085.6	1084.7	1084.7	1083.9	1083.9	1083.1	1083.1	1082.3
5°	1086.4	1085.6	1084.7	1085.6	1083.9	1084.7	1084.7	1083.9	1083.1	1082.3	1081.4
7.5°	1085.6	1085.6	1083.9	1084.7	1083.1	1083.1	1082.3	1082.3	1081.4	1081.4	1080.6
10°	1083.9	1083.1	1083.1	1083.1	1081.4	1081.4	1080.6	1079.8	1079.8	1078.9	1078.1
12.5°	1082.3	1081.4	1080.6	1080.6	1079.8	1078.9	1078.1	1078.1	1077.3	1076.4	1075.6
15°	1079.8	1078.9	1078.9	1078.9	1078.1	1078.1	1077.3	1076.4	1074.8	1074.0	1073.1
17.5°	1078.9	1078.1	1078.9	1078.9	1078.1	1078.9	1077.3	1075.6	1074.0	1073.1	1072.3
20°	1078.1	1078.1	1078.1	1077.3	1076.4	1075.6	1074.8	1074.0	1073.1	1072.3	1071.5
22.5°	1074.0	1073.1	1071.5	1066.5	1060.7	1056.5	1055.7	1057.4	1057.4	1057.4	1054.9
25°	1066.5	1064.0	1057.4	1048.2	1038.3	1031.7	1027.5	1027.5	1026.7	1025.0	1024.2
27.5°	1057.4	1052.4	1040.8	1029.2	1015.1	1006.8	996.8	991.0	988.5	987.7	986.1
30°	1044.9	1037.5	1022.5	1007.6	990.2	978.6	962.8	952.9	947.1	944.6	942.9
32.5°	1030.0	1022.5	1005.1	986.9	966.1	949.6	929.7	913.9	903.1	898.1	895.7
35°	1020.1	1009.3	989.4	967.8	947.1	923.0	899.0	877.4	860.8	855.0	851.7
37.5°	1015.9	1006.0	984.4	962.8	939.6	910.6	882.4	851.7	829.3	819.4	816.0
40°	1018.4	1006.0	981.9	958.7	931.3	899.0	861.7	823.5	794.5	780.4	777.1
42.5°	1012.6	998.5	970.3	945.4	911.4	874.9	829.3	785.4	746.4	734.8	729.8
45°	1002.6	985.2	954.5	923.0	887.4	842.6	795.3	738.9	692.5	678.4	674.2
47.5°	992.7	968.6	932.1	903.1	860.0	807.7	752.2	689.2	631.1	617.0	614.5
50°	977.8	955.4	916.4	882.4	838.4	777.9	714.9	636.1	570.6	546.5	539.9
52.5°	971.1	942.1	904.8	878.2	825.2	756.3	676.7	592.1	497.6	467.7	461.1
55°	977.8	941.3	901.5	875.8	814.4	729.0	631.1	523.3	413.8	382.3	373.2
57.5°	966.1	934.6	894.8	865.8	786.2	672.6	564.8	426.3	312.7	272.0	268.7
60°	951.2	906.4	869.1	842.6	727.3	566.4	439.5	303.5	188.3	153.4	146.8
62.5°	945.4	899.0	855.8	823.5	648.5	416.3	267.9	153.4	78.0	54.7	49.8
65°	*927.2*	*885.7*	*855.0*	*809.4*	*566.4*	*257.1*	*115.3*	*45.6*	*3.3*	*2.5*	*2.5*
67.5°	892.3	850.0	829.3	802.8	558.1	245.5	104.5	41.5	1.7	0.0	0.0
70°	832.6	799.5	785.4	771.3	534.1	227.2	95.4	37.3	0.8	0.0	0.0
72.5°	753.8	731.5	729.0	727.3	499.2	209.8	85.4	33.2	0.8	0.0	0.0
75°	675.1	647.7	651.8	661.8	456.1	185.8	73.8	29.0	0.8	0.0	0.0
77.5°	575.5	555.6	565.6	582.2	399.7	157.6	60.5	23.2	0.8	0.0	0.0
80°	452.8	439.5	461.9	476.9	326.7	125.2	45.6	16.6	0.0	0.0	0.0
82.5°	321.8	314.3	335.0	354.1	243.0	88.7	31.5	10.8	0.0	0.0	0.0
85°	173.3	169.2	189.1	209.8	146.0	50.6	15.8	5.0	0.0	0.0	0.0
87.5°	43.1	39.8	40.6	48.9	35.7	10.8	2.5	0.8	0.0	0.0	0.0
90°	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
102.5°	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
110°	0.8	0.8	0.8	0.8	0.8	0.8	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: P821283
CATALOG NUMBER: TT-D2-740-24VDC-MQ-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
115°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
117.5°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
122.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
125°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
127.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
130°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
135°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
147.5°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
165°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
167.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
170°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
172.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
175°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
177.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

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: SP1-2407-176-5

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-740-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-740-U-WQ

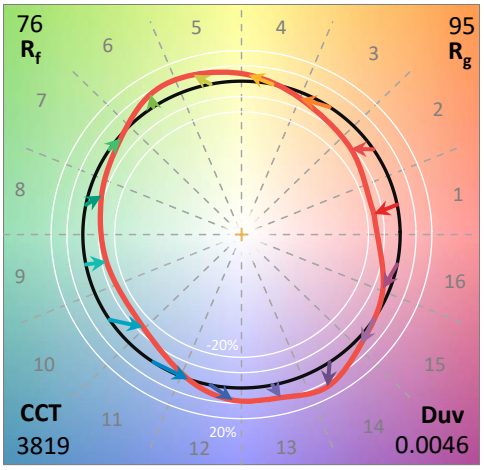
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-5
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-30-740-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	3819	CRI (Ra):	72.9		
CIE u':	0.2261	R1:	70.1	R9:	-21.5
CIE v':	0.5108	R2:	78.4	R10:	48.5
Duv:	0.0046	R3:	85.0	R11:	68.4
CIE x:	0.3926	R4:	72.9	R12:	39.0
CIE y:	0.3942	R5:	69.1	R13:	71.1
CIE z:	0.2132	R6:	69.2	R14:	91.3
Peak Wavelength (nm):	450	R7:	82.8	R15:	63.2
Dominant Wavelength (nm):	577	R8:	55.4		
Purity:	36.15483				
Rf:	75.6				
Rg:	94.8				



Test Conditions

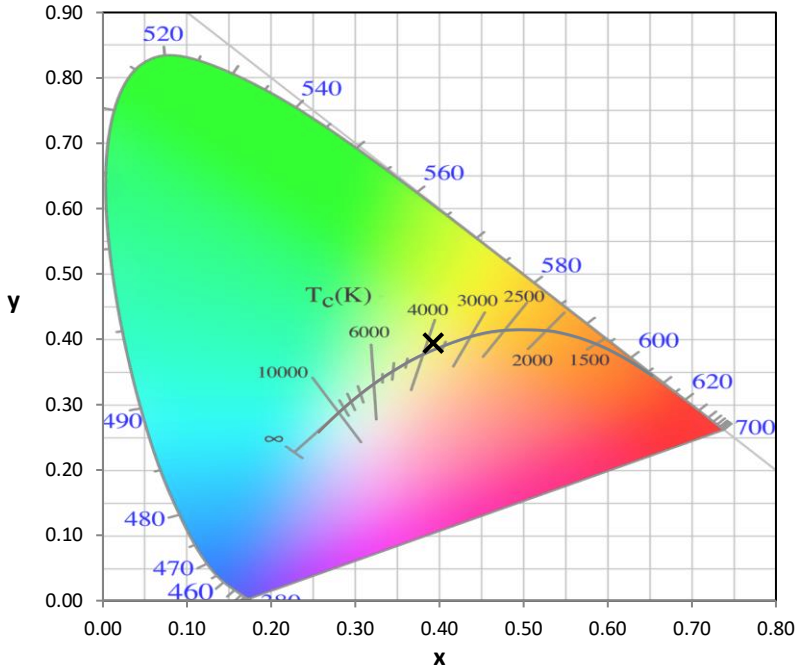
Stabilization Time:	30M
Operation Time:	1H 30M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-5

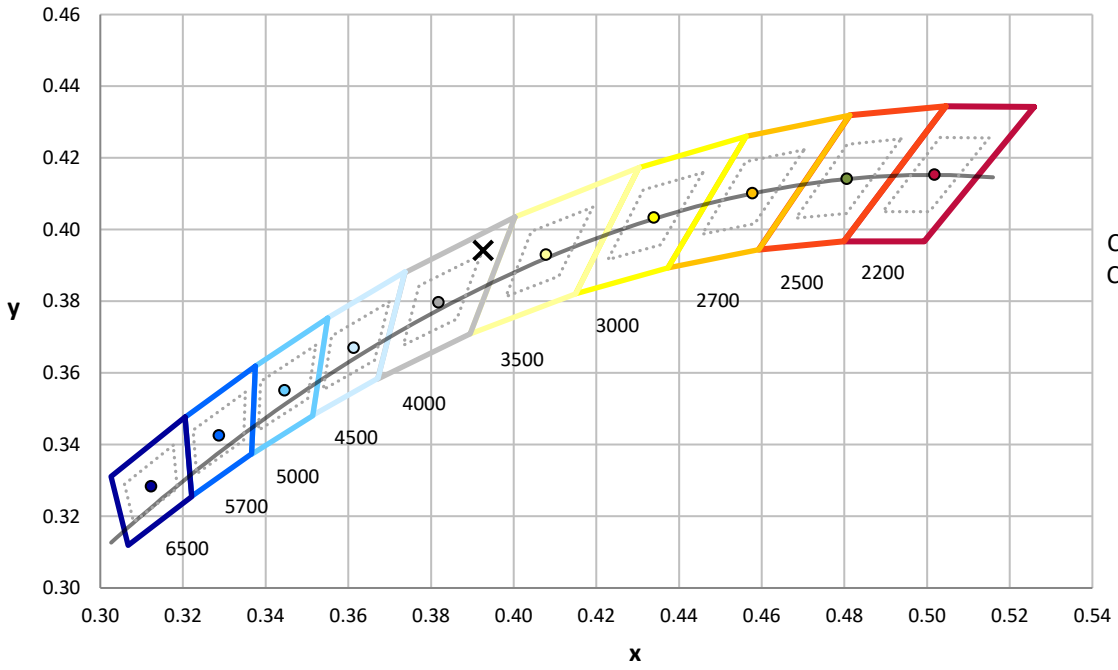
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-176-5

CIE 1931 Chromaticity Diagram



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

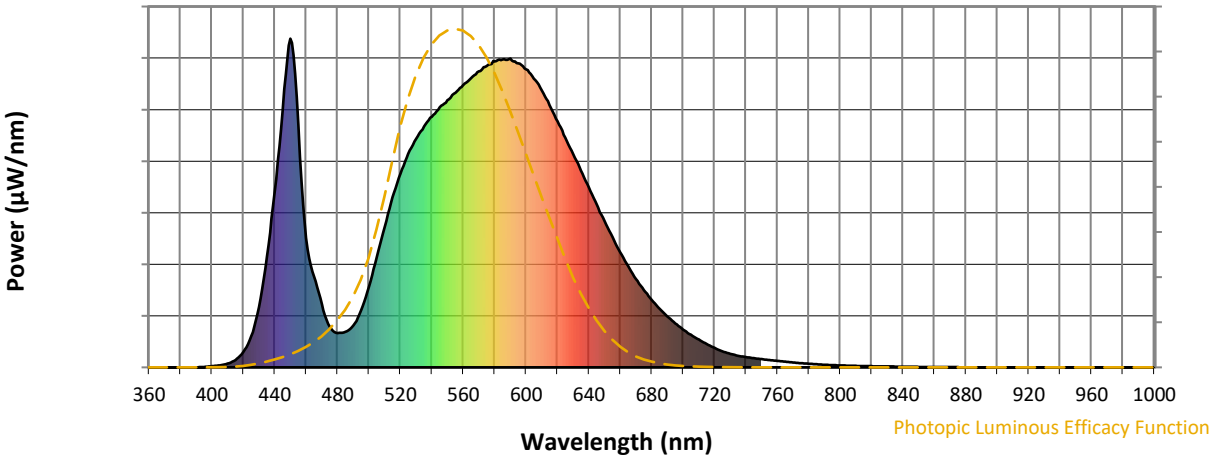


CCT = 3819K
CIE x = 0.3926
CIE y = 0.3942
Duv = 0.0046

Point lies inside the ANSI 4000K 7-step quadrangle

REPORT NUMBER: SP1-2407-176-5

Photopic Flux vs. Wavelength

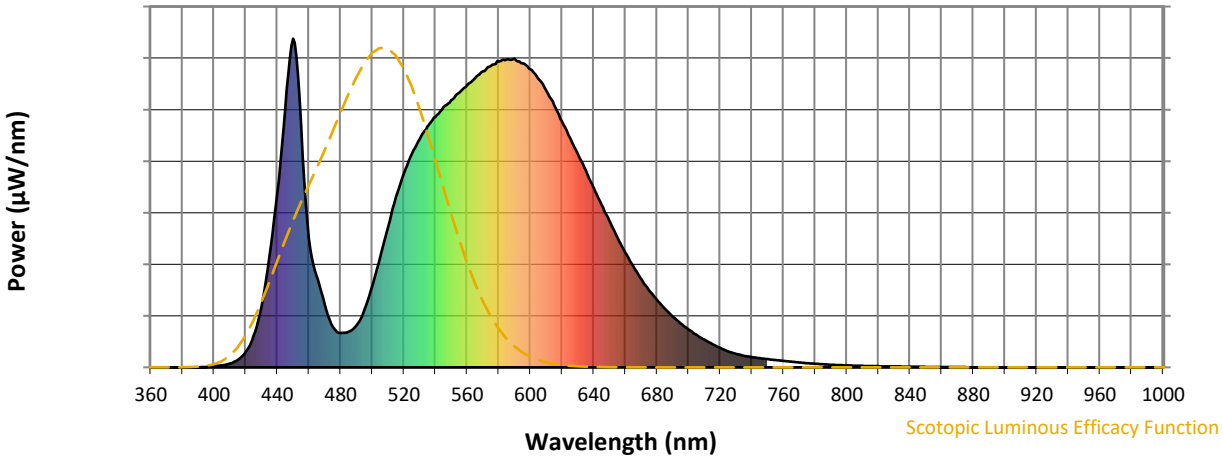


Photopic Lumens: NR

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	127	NR	620	748	NR	750	25	NR	880	0	NR
365	0	NR	495	173	NR	625	699	NR	755	22	NR	885	0	NR
370	0	NR	500	246	NR	630	648	NR	760	20	NR	890	0	NR
375	0	NR	505	335	NR	635	599	NR	765	17	NR	895	0	NR
380	0	NR	510	427	NR	640	547	NR	770	15	NR	900	0	NR
385	0	NR	515	517	NR	645	495	NR	775	13	NR	905	0	NR
390	0	NR	520	589	NR	650	445	NR	780	11	NR	910	0	NR
395	1	NR	525	649	NR	655	396	NR	785	9	NR	915	0	NR
400	4	NR	530	695	NR	660	349	NR	790	8	NR	920	0	NR
405	6	NR	535	733	NR	665	308	NR	795	7	NR	925	0	NR
410	11	NR	540	763	NR	670	269	NR	800	6	NR	930	0	NR
415	23	NR	545	792	NR	675	235	NR	805	5	NR	935	0	NR
420	46	NR	550	813	NR	680	205	NR	810	5	NR	940	0	NR
425	95	NR	555	835	NR	685	178	NR	815	4	NR	945	0	NR
430	183	NR	560	859	NR	690	155	NR	820	3	NR	950	0	NR
435	338	NR	565	880	NR	695	134	NR	825	3	NR	955	0	NR
440	534	NR	570	900	NR	700	115	NR	830	3	NR	960	0	NR
445	782	NR	575	918	NR	705	99	NR	835	2	NR	965	0	NR
450	1000	NR	580	931	NR	710	84	NR	840	2	NR	970	0	NR
455	739	NR	585	937	NR	715	71	NR	845	2	NR	975	0	NR
460	393	NR	590	939	NR	720	59	NR	850	1	NR	980	0	NR
465	276	NR	595	925	NR	725	49	NR	855	1	NR	985	0	NR
470	190	NR	600	907	NR	730	41	NR	860	1	NR	990	0	NR
475	123	NR	605	878	NR	735	35	NR	865	1	NR	995	0	NR
480	105	NR	610	842	NR	740	31	NR	870	1	NR	1000	0	NR
485	108	NR	615	797	NR	745	28	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-5

Scotopic Flux vs. Wavelength

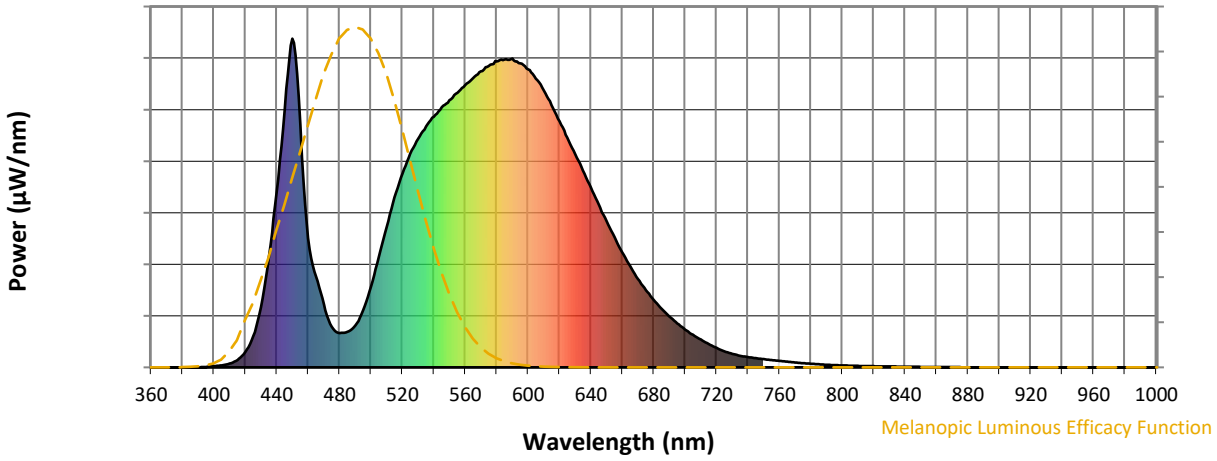


Scotopic Lumens: NR **S/P: 1.45**

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	127	NR	620	748	NR	750	25	NR	880	0	NR
365	0	NR	495	173	NR	625	699	NR	755	22	NR	885	0	NR
370	0	NR	500	246	NR	630	648	NR	760	20	NR	890	0	NR
375	0	NR	505	335	NR	635	599	NR	765	17	NR	895	0	NR
380	0	NR	510	427	NR	640	547	NR	770	15	NR	900	0	NR
385	0	NR	515	517	NR	645	495	NR	775	13	NR	905	0	NR
390	0	NR	520	589	NR	650	445	NR	780	11	NR	910	0	NR
395	1	NR	525	649	NR	655	396	NR	785	9	NR	915	0	NR
400	4	NR	530	695	NR	660	349	NR	790	8	NR	920	0	NR
405	6	NR	535	733	NR	665	308	NR	795	7	NR	925	0	NR
410	11	NR	540	763	NR	670	269	NR	800	6	NR	930	0	NR
415	23	NR	545	792	NR	675	235	NR	805	5	NR	935	0	NR
420	46	NR	550	813	NR	680	205	NR	810	5	NR	940	0	NR
425	95	NR	555	835	NR	685	178	NR	815	4	NR	945	0	NR
430	183	NR	560	859	NR	690	155	NR	820	3	NR	950	0	NR
435	338	NR	565	880	NR	695	134	NR	825	3	NR	955	0	NR
440	534	NR	570	900	NR	700	115	NR	830	3	NR	960	0	NR
445	782	NR	575	918	NR	705	99	NR	835	2	NR	965	0	NR
450	1000	NR	580	931	NR	710	84	NR	840	2	NR	970	0	NR
455	739	NR	585	937	NR	715	71	NR	845	2	NR	975	0	NR
460	393	NR	590	939	NR	720	59	NR	850	1	NR	980	0	NR
465	276	NR	595	925	NR	725	49	NR	855	1	NR	985	0	NR
470	190	NR	600	907	NR	730	41	NR	860	1	NR	990	0	NR
475	123	NR	605	878	NR	735	35	NR	865	1	NR	995	0	NR
480	105	NR	610	842	NR	740	31	NR	870	1	NR	1000	0	NR
485	108	NR	615	797	NR	745	28	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.76**

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	127	NR	620	748	NR	750	25	NR	880	0	NR
365	0	NR	495	173	NR	625	699	NR	755	22	NR	885	0	NR
370	0	NR	500	246	NR	630	648	NR	760	20	NR	890	0	NR
375	0	NR	505	335	NR	635	599	NR	765	17	NR	895	0	NR
380	0	NR	510	427	NR	640	547	NR	770	15	NR	900	0	NR
385	0	NR	515	517	NR	645	495	NR	775	13	NR	905	0	NR
390	0	NR	520	589	NR	650	445	NR	780	11	NR	910	0	NR
395	1	NR	525	649	NR	655	396	NR	785	9	NR	915	0	NR
400	4	NR	530	695	NR	660	349	NR	790	8	NR	920	0	NR
405	6	NR	535	733	NR	665	308	NR	795	7	NR	925	0	NR
410	11	NR	540	763	NR	670	269	NR	800	6	NR	930	0	NR
415	23	NR	545	792	NR	675	235	NR	805	5	NR	935	0	NR
420	46	NR	550	813	NR	680	205	NR	810	5	NR	940	0	NR
425	95	NR	555	835	NR	685	178	NR	815	4	NR	945	0	NR
430	183	NR	560	859	NR	690	155	NR	820	3	NR	950	0	NR
435	338	NR	565	880	NR	695	134	NR	825	3	NR	955	0	NR
440	534	NR	570	900	NR	700	115	NR	830	3	NR	960	0	NR
445	782	NR	575	918	NR	705	99	NR	835	2	NR	965	0	NR
450	1000	NR	580	931	NR	710	84	NR	840	2	NR	970	0	NR
455	739	NR	585	937	NR	715	71	NR	845	2	NR	975	0	NR
460	393	NR	590	939	NR	720	59	NR	850	1	NR	980	0	NR
465	276	NR	595	925	NR	725	49	NR	855	1	NR	985	0	NR
470	190	NR	600	907	NR	730	41	NR	860	1	NR	990	0	NR
475	123	NR	605	878	NR	735	35	NR	865	1	NR	995	0	NR
480	105	NR	610	842	NR	740	31	NR	870	1	NR	1000	0	NR
485	108	NR	615	797	NR	745	28	NR	875	1	NR			

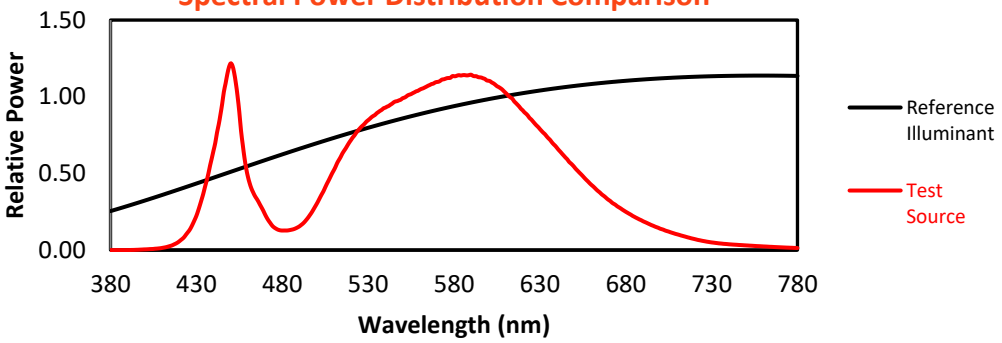
REPORT NUMBER: SP1-2407-176-5

TM-30-18

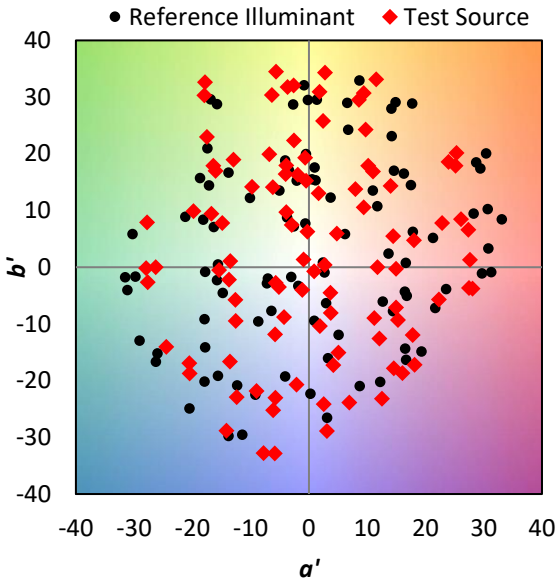
Summary

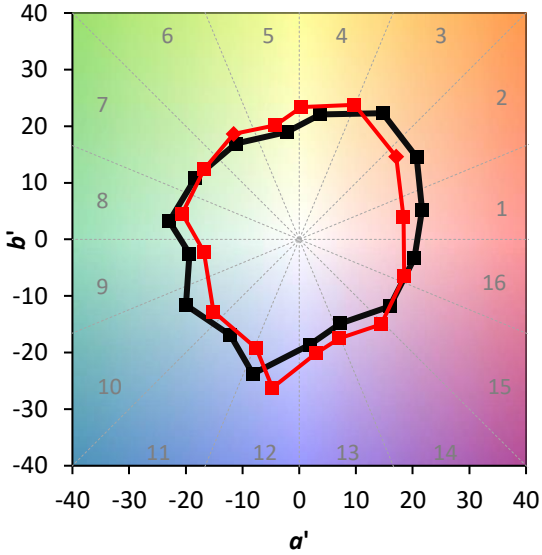
R_f = 75.6
R_g = 94.8
CIE R_a = 72.9
R_9 = -21.5

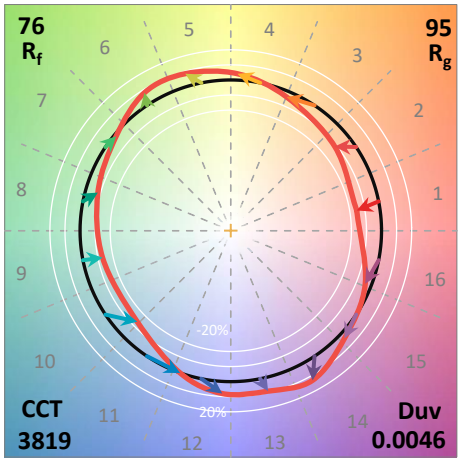
Spectral Power Distribution Comparison

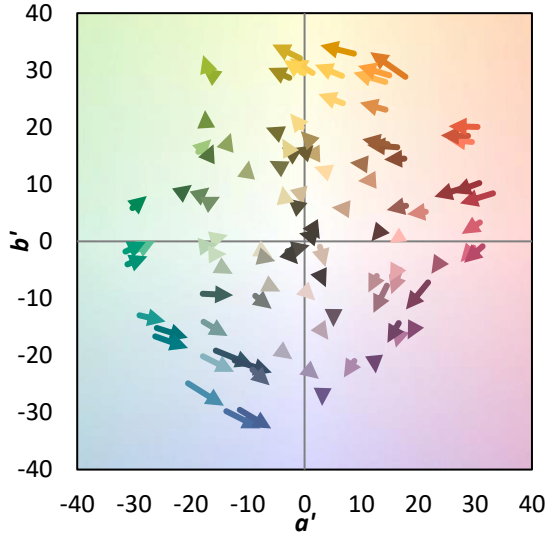


Color Vector Graphics







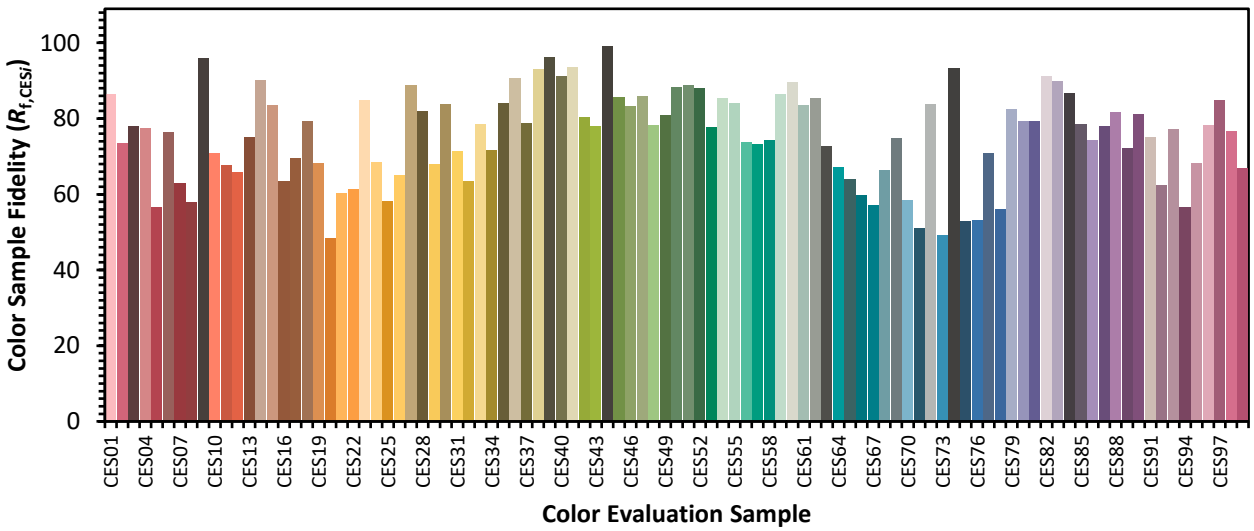


REPORT NUMBER: SP1-2407-176-5

TM-30-18

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

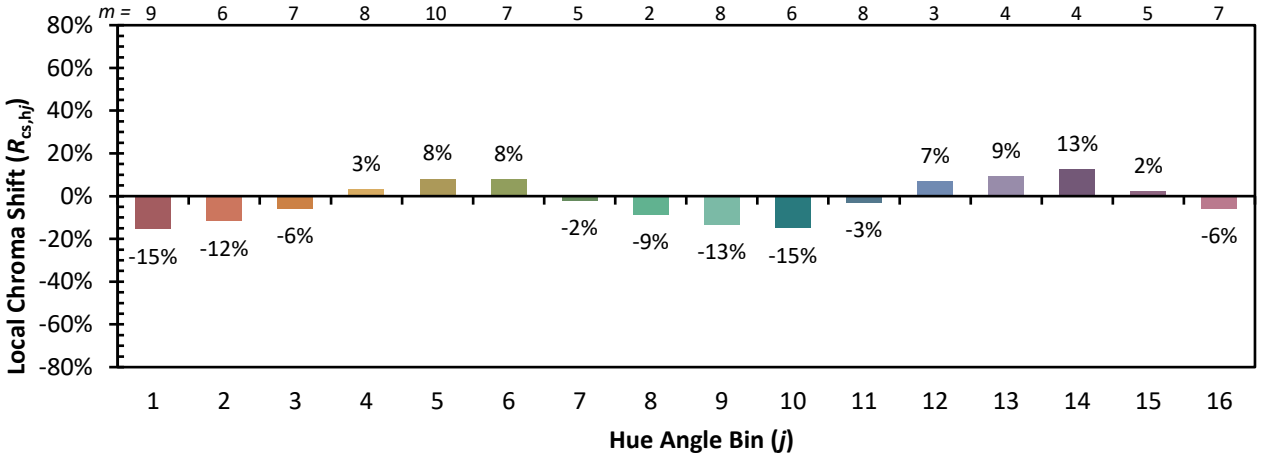
CES01 = 85	CES26 = 65	CES51 = 89	CES76 = 53
CES02 = 61	CES27 = 89	CES52 = 88	CES77 = 71
CES03 = 30	CES28 = 82	CES53 = 78	CES78 = 56
CES04 = 70	CES29 = 68	CES54 = 85	CES79 = 83
CES05 = 48	CES30 = 84	CES55 = 84	CES80 = 79
CES06 = 50	CES31 = 71	CES56 = 74	CES81 = 79
CES07 = 40	CES32 = 63	CES57 = 73	CES82 = 91
CES08 = 39	CES33 = 79	CES58 = 74	CES83 = 90
CES09 = 29	CES34 = 72	CES59 = 86	CES84 = 87
CES10 = 74	CES35 = 84	CES60 = 90	CES85 = 78
CES11 = 57	CES36 = 91	CES61 = 84	CES86 = 74
CES12 = 63	CES37 = 79	CES62 = 85	CES87 = 78
CES13 = 42	CES38 = 93	CES63 = 73	CES88 = 82
CES14 = 74	CES39 = 96	CES64 = 67	CES89 = 72
CES15 = 71	CES40 = 91	CES65 = 64	CES90 = 81
CES16 = 47	CES41 = 93	CES66 = 60	CES91 = 75
CES17 = 49	CES42 = 80	CES67 = 57	CES92 = 62
CES18 = 56	CES43 = 78	CES68 = 66	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 75	CES94 = 57
CES20 = 65	CES45 = 86	CES70 = 58	CES95 = 68
CES21 = 86	CES46 = 83	CES71 = 51	CES96 = 78
CES22 = 78	CES47 = 86	CES72 = 84	CES97 = 85
CES23 = 92	CES48 = 78	CES73 = 49	CES98 = 77
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 67
CES25 = 72	CES50 = 88	CES75 = 53	

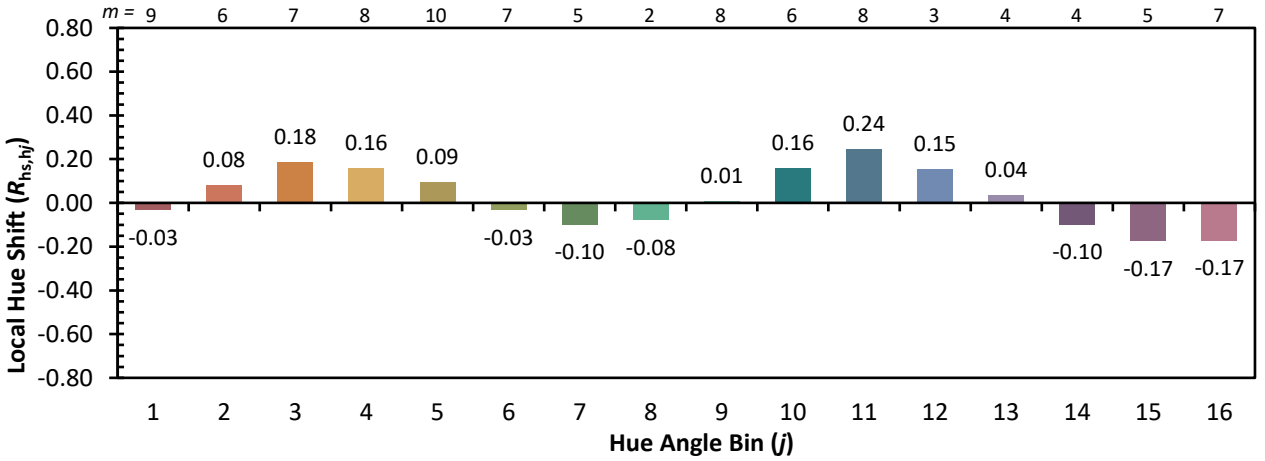


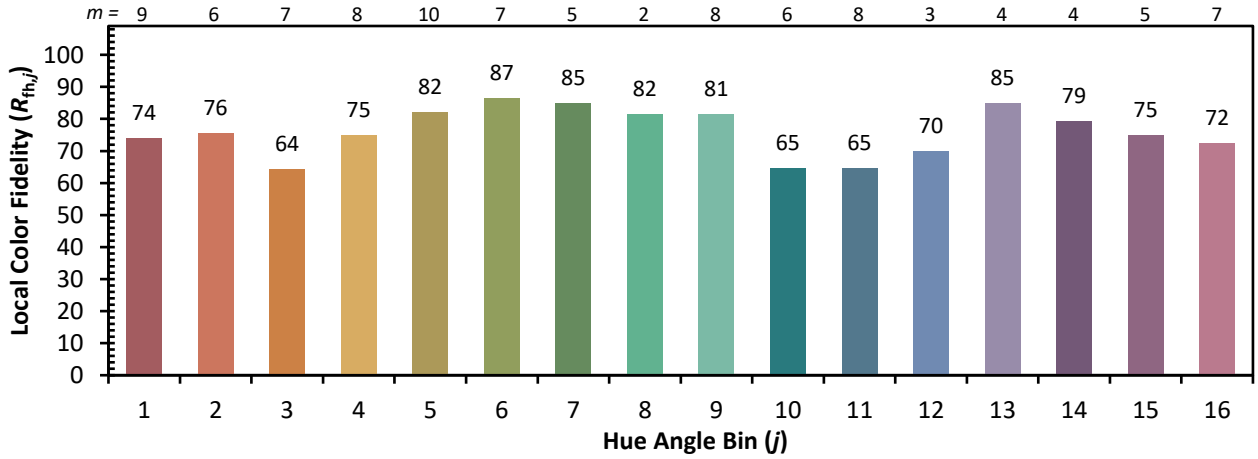
REPORT NUMBER: SP1-2407-176-5

TM-30-18

Color Rendition by Hue-Angle Bin



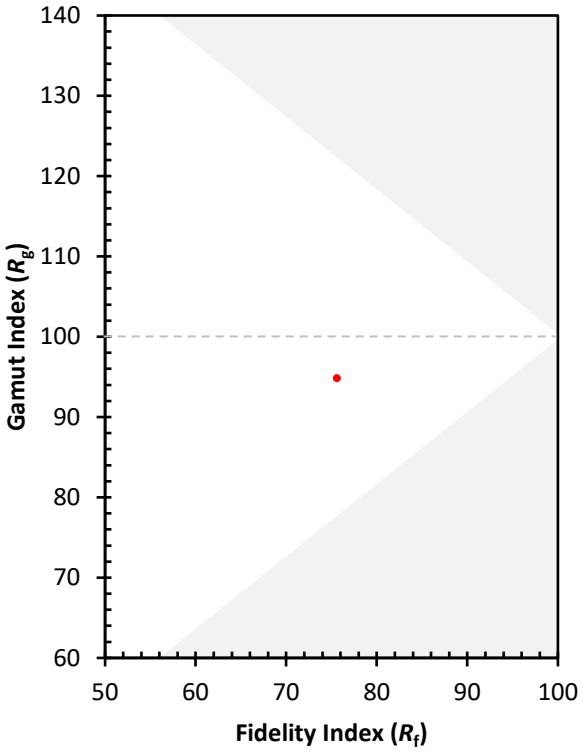


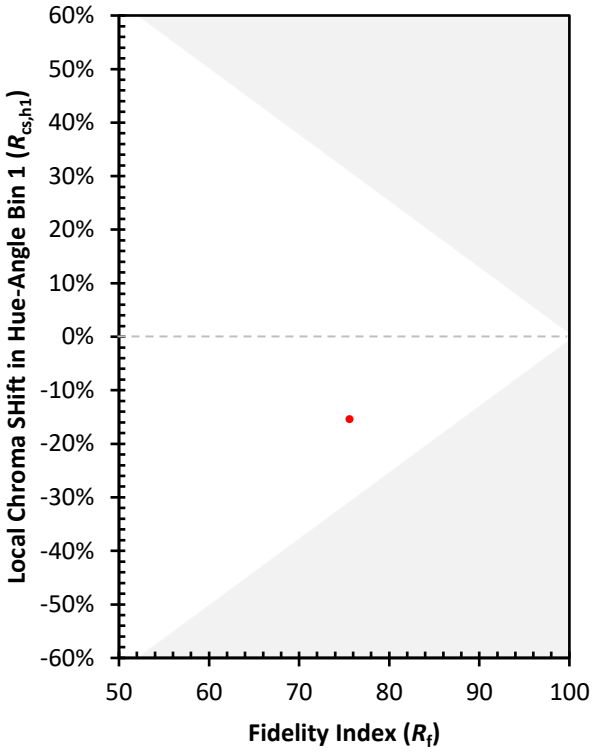


REPORT NUMBER: SP1-2407-176-5

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Measure Comparisons





(END OF REPORT)