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: P821529

Luminaire Tested: **TT-D2-740-12VDC-CQ-HSS**

Issue Date: 12/2/2020

Report Generated By 670245763

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

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P821529
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-3)
Test Lab:	INNOVATION CENTER
Issue Date:	12/2/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D2-740-12VDC-CQ-HSS
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE
	4000K, 70 CRI LEDS AND CONCENTRATED DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4409.9 lumens
Efficiency:	N/A
Efficacy:	116.0 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B2 - U1 - G1

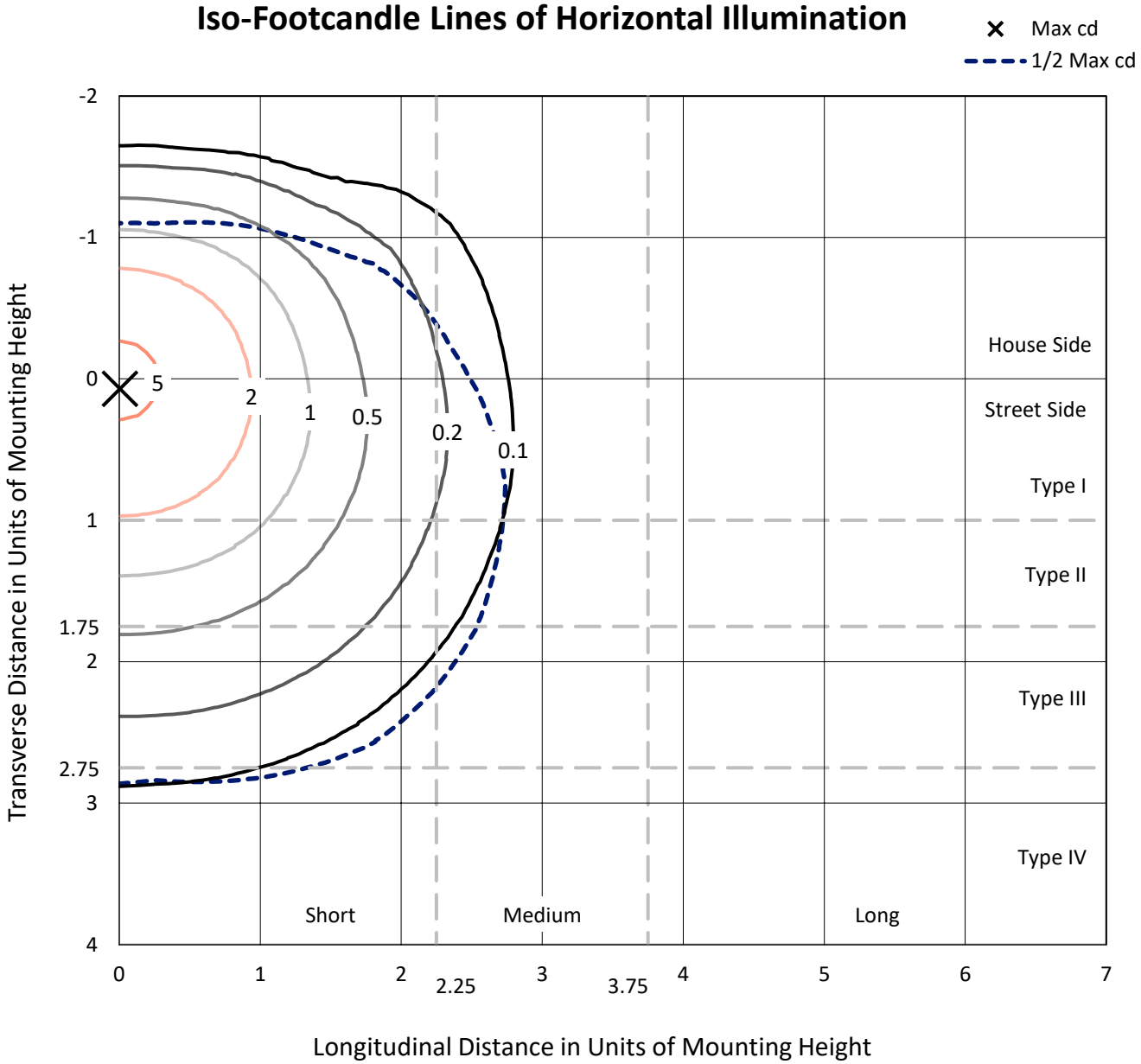
Input Watts (W):	38
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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

Scaled Data Report

REPORT NUMBER: P821529
CATALOG NUMBER: TT-D2-740-12VDC-CQ-HSS

Iso-Footcandle Lines of Horizontal Illumination



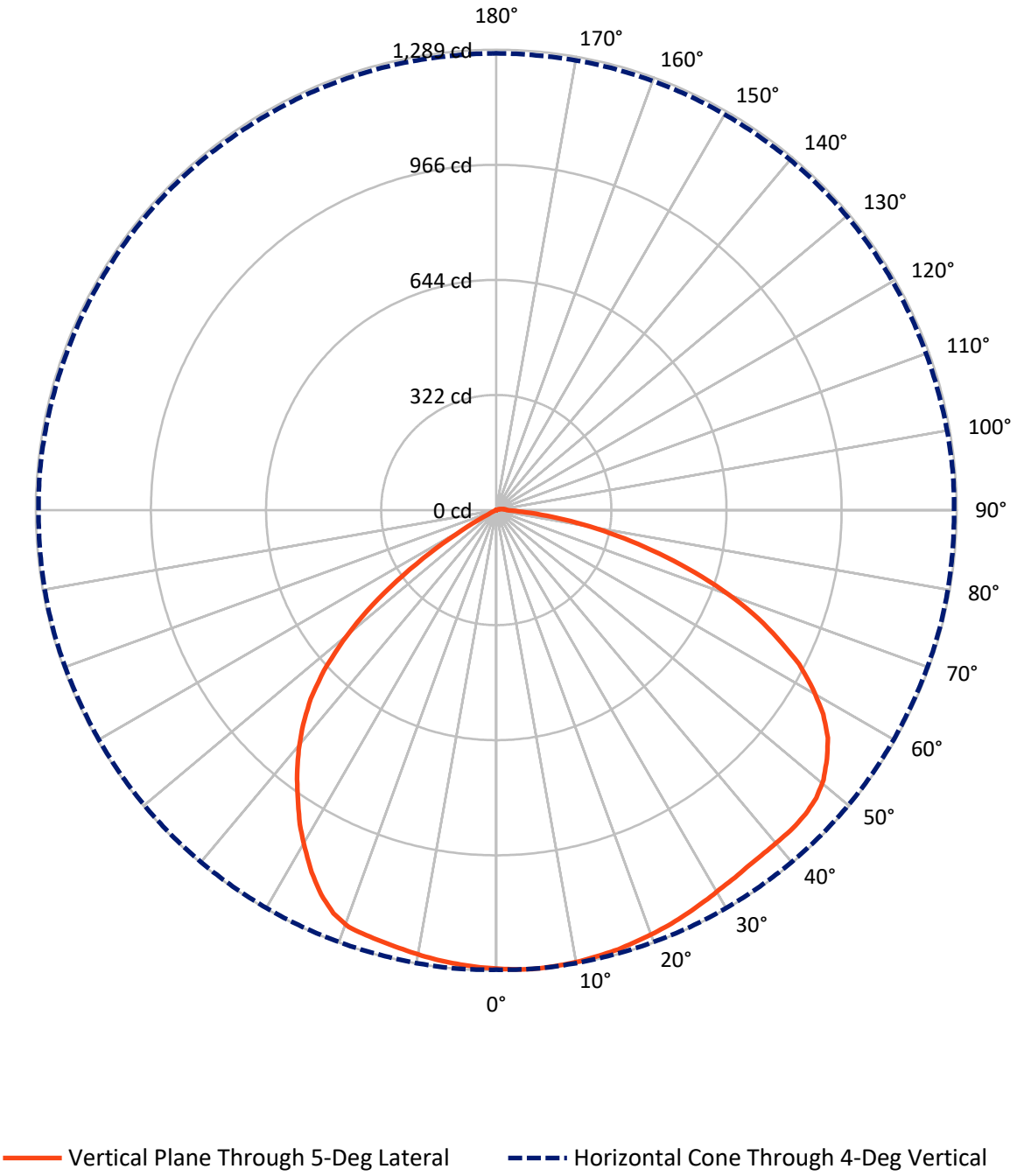
Based on 15 foot mounting height. Maximum calculated value = 5.7 fc
Type IV - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P821529
CATALOG NUMBER: TT-D2-740-12VDC-CQ-HSS

Luminous Intensity Polar Plot



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

Scaled Data Report

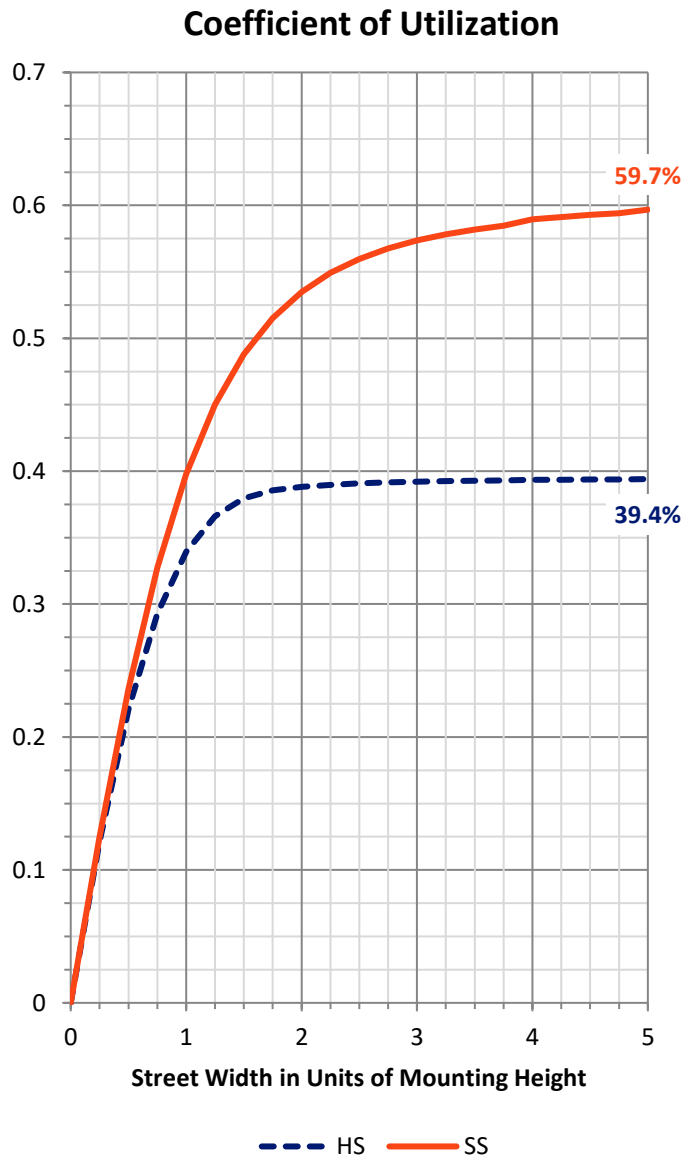
REPORT NUMBER: P821529
CATALOG NUMBER: TT-D2-740-12VDC-CQ-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1747.6	2.2	1749.8
	% Fixture	39.6	0.0	39.7
Street Side	Lumens	2647.8	12.3	2660.1
	% Fixture	60.0	0.3	60.3
Total	Lumens	4395.4	14.4	4409.9
	% Fixture	99.7	0.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.1	2.8
10°-20°	357.5	8.1
20°-30°	563.3	12.8
30°-40°	716.9	16.3
40°-50°	828.0	18.8
50°-60°	810.7	18.4
60°-70°	603.8	13.7
70°-80°	327.0	7.4
80°-90°	66.3	1.5
90°-100°	8.4	0.2
100°-110°	3.3	0.1
110°-120°	0.9	0.0
120°-130°	0.6	0.0
130°-140°	0.5	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	4395.4	99.7
0°-180°	4409.9	100.0



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

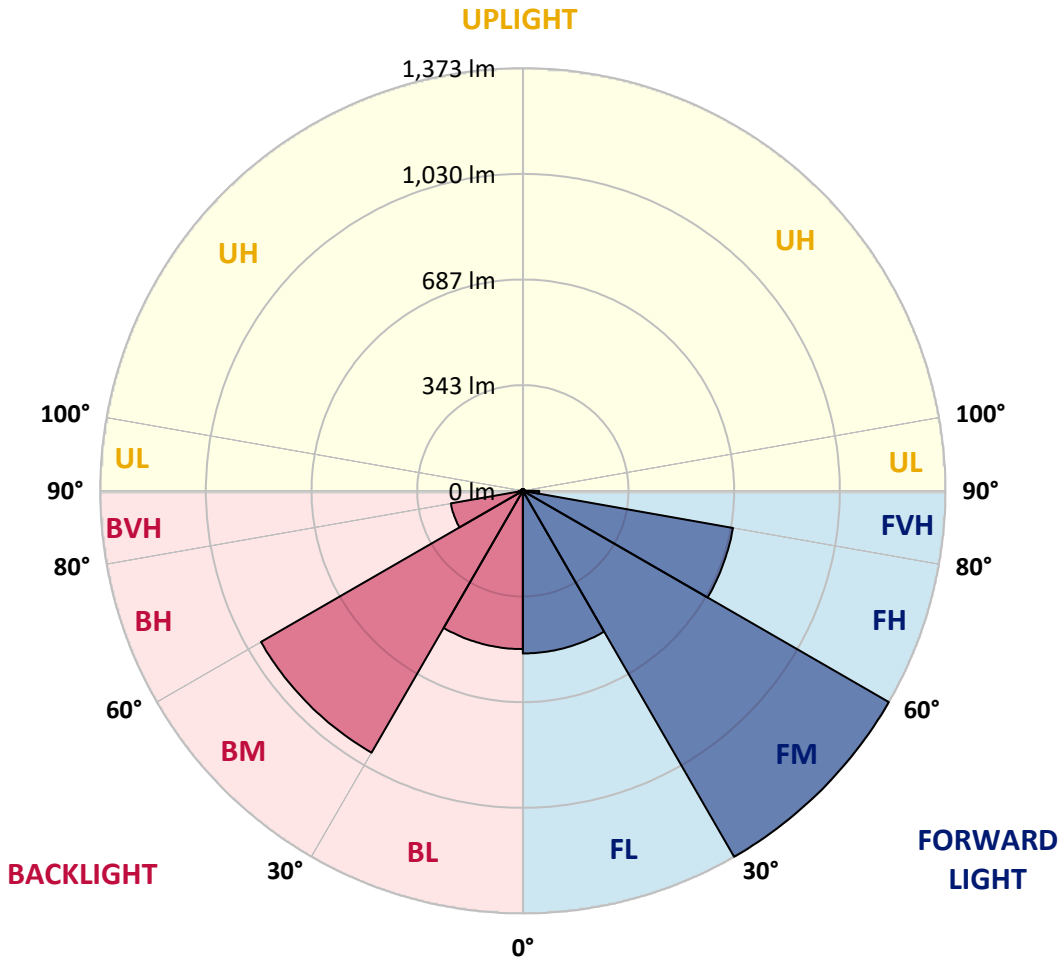
Scaled Data Report

REPORT NUMBER: P821529
CATALOG NUMBER: TT-D2-740-12VDC-CQ-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	528.4	12.0			
FM	(30°-60°)	1373.1	31.1			
FH	(60°-80°)	693.4	15.7			G1/1800
FVH	(80°-90°)	52.9	1.2			G1/100
BL	(0°-30°)	514.4	11.7	B2/1000		
BM	(30°-60°)	982.4	22.3	B1/1000		
BH	(60°-80°)	237.5	5.4	B1/500		G1/500
BVH	(80°-90°)	13.4	0.3			G1/100
UL	(90°-100°)	8.4	0.2		U1/10	
UH	(100°-180°)	6.0	0.1		U1/10	

BUG Rating: B2-U1-G1
Type IV Short



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

Scaled Data Report

REPORT NUMBER: P821529
CATALOG NUMBER: TT-D2-740-12VDC-CQ-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1284.4	*1284.4*	1284.4	1284.4	1284.4	1284.4	1284.4	1284.4	1284.4	1284.4	1284.4
2.5°	1286.1	*1287.8*	1286.9	1286.9	1285.3	1286.1	1285.3	1285.3	1284.4	1283.6	1283.6
4°	*1286.9*	*1288.6*	*1286.9*	*1286.9*	*1286.1*	*1286.1*	*1285.3*	*1283.6*	*1284.4*	*1282.0*	*1281.1*
5°	1287.8	*1288.6*	1287.8	1287.8	1286.1	1285.3	1283.6	1283.6	1282.8	1281.1	1281.1
7.5°	1286.1	*1286.9*	1286.9	1286.1	1284.4	1282.8	1282.0	1281.1	1280.3	1277.8	1277.8
10°	1282.8	*1284.4*	1282.8	1282.8	1282.0	1280.3	1277.8	1277.0	1274.5	1272.8	1272.0
12.5°	1279.5	*1280.3*	1279.5	1279.5	1277.8	1275.3	1274.5	1272.8	1269.5	1267.0	1267.0
15°	1274.5	*1276.2*	1275.3	1274.5	1273.7	1271.2	1268.7	1266.2	1263.7	1261.2	1261.2
17.5°	1268.7	*1269.5*	1270.3	1269.5	1267.9	1266.2	1263.7	1260.4	1257.9	1255.4	1254.6
20°	1262.1	*1263.7*	1263.7	1263.7	1262.1	1260.4	1257.1	1253.8	1252.1	1248.8	1248.0
22.5°	1255.4	*1257.1*	1256.3	1257.1	1256.3	1253.8	1250.4	1247.1	1243.8	1241.3	1239.7
25°	1248.8	*1248.8*	1248.8	1248.8	1248.8	1245.5	1242.2	1238.0	1234.7	1230.5	1230.5
27.5°	1240.5	*1240.5*	1241.3	1241.3	1240.5	1238.0	1233.9	1228.9	1223.9	1219.8	1218.1
30°	1233.0	*1232.2*	1233.9	1235.5	1234.7	1232.2	1227.2	1221.4	1214.0	1208.2	1203.2
32.5°	1223.9	*1226.4*	1228.1	1231.4	1232.2	1228.9	1223.1	1215.6	1208.2	1197.4	1188.3
35°	1220.6	*1220.6*	1224.7	1229.7	1231.4	1229.7	1221.4	1213.1	1202.4	1186.6	1175.8
37.5°	1217.3	*1218.1*	1224.7	1232.2	1234.7	1234.7	1225.6	1214.8	1199.9	1177.5	1164.2
40°	1215.6	*1217.3*	1225.6	1236.3	1243.0	1242.2	1231.4	1218.1	1199.9	1170.8	1154.3
42.5°	1214.0	*1217.3*	1226.4	1241.3	1251.3	1250.4	1238.8	1221.4	1198.2	1162.6	1143.5
45°	1211.5	*1214.0*	1226.4	1245.5	1258.7	1261.2	1248.0	1225.6	1198.2	1155.1	1130.2
47.5°	1204.0	*1204.8*	1221.4	1243.8	1263.7	1267.0	1253.8	1227.2	1194.9	1142.6	1113.6
50°	1184.1	*1186.6*	1205.7	1235.5	1258.7	1263.7	1252.1	1223.1	1186.6	1121.9	1087.1
52.5°	1158.4	*1158.4*	1181.6	1214.8	1243.0	1251.3	1240.5	1208.2	1165.9	1091.2	1051.4
55°	1120.3	*1126.1*	1150.1	1184.9	1215.6	1227.2	1212.3	1180.8	1131.9	1052.3	1008.3
57.5°	1077.1	*1078.8*	1103.7	1145.1	1176.6	1184.1	1171.7	1134.4	1087.1	1005.8	953.6
60°	1015.0	*1018.3*	1049.8	1086.3	1120.3	1130.2	1114.5	1077.1	1027.4	946.1	893.1
62.5°	946.1	*951.1*	979.3	1016.6	1048.9	1064.7	1045.6	1006.7	957.7	874.8	828.4
65°	863.2	*864.9*	895.5	937.8	970.2	976.0	959.4	921.3	872.3	792.7	751.3
67.5°	767.8	*776.1*	806.0	837.5	865.7	872.3	860.7	816.8	777.8	707.3	666.7
70°	675.8	*671.7*	696.5	728.0	753.8	759.6	746.3	705.7	669.2	602.8	571.3
72.5°	564.7	*561.4*	587.9	612.0	636.8	633.5	620.2	587.9	556.4	500.0	471.0
75°	452.7	*449.4*	470.2	490.9	503.3	505.0	495.9	471.8	437.8	393.9	371.5
77.5°	343.3	*346.6*	355.7	373.1	384.8	389.7	374.0	349.9	328.4	294.4	277.8
80°	244.6	*245.4*	248.8	261.2	269.5	269.5	262.0	243.0	218.9	194.9	186.6
82.5°	154.2	*157.5*	157.5	170.0	170.0	163.4	160.0	147.6	135.2	116.1	104.5
85°	84.6	*82.9*	87.9	88.7	87.9	82.9	77.9	70.5	62.2	48.9	43.9
87.5°	37.3	*36.5*	36.5	36.5	35.7	32.3	27.4	21.6	14.9	9.1	6.6
90°	29.0	*29.0*	28.2	26.5	24.0	21.6	17.4	13.3	8.3	3.3	1.7
92.5°	26.5	*26.5*	25.7	24.9	22.4	19.9	15.8	11.6	7.5	3.3	1.7
95°	23.2	*22.4*	22.4	20.7	19.1	16.6	14.1	10.0	6.6	2.5	1.7
97.5°	19.1	*18.2*	18.2	17.4	15.8	13.3	11.6	8.3	5.8	2.5	1.7
100°	14.1	*14.9*	14.1	13.3	12.4	10.8	9.1	6.6	4.1	1.7	1.7
102.5°	10.8	*10.8*	10.0	10.0	9.1	8.3	6.6	5.0	3.3	1.7	0.8
105°	7.5	*7.5*	7.5	6.6	6.6	5.8	5.0	3.3	2.5	1.7	0.8
107.5°	4.1	*4.1*	4.1	4.1	4.1	4.1	3.3	2.5	1.7	0.8	0.8

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

Scaled Data Report

REPORT NUMBER: P821529
CATALOG NUMBER: TT-D2-740-12VDC-CQ-HSS

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	2.5	2.5	2.5	2.5	2.5	2.5	1.7	1.7	0.8	0.8	0.8
112.5°	0.8	0.8	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	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
117.5°	0.0	0.0	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	0.0	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	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8
142.5°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
145°	0.8	0.8	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
147.5°	0.8	0.8	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
150°	0.8	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
152.5°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
155°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
157.5°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
160°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
162.5°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
165°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
167.5°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
170°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
172.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8
175°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8
177.5°	0.0	0.0	0.0	0.0	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

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

Scaled Data Report

REPORT NUMBER: P821529
CATALOG NUMBER: TT-D2-740-12VDC-CQ-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1284.4	1284.4	1284.4	1284.4	1284.4	1284.4	1284.4	1284.4	1284.4	1284.4
2.5°	1282.8	1280.3	1282.0	1281.1	1282.0	1280.3	1280.3	1280.3	1281.1	1279.5
4°	*1282.0*	*1280.3*	*1280.3*	*1280.3*	*1280.3*	*1278.6*	*1278.6*	*1278.6*	*1277.8*	*1278.6*
5°	1280.3	1279.5	1278.6	1277.8	1278.6	1277.0	1276.2	1276.2	1276.2	1277.0
7.5°	1277.0	1274.5	1274.5	1272.0	1272.8	1272.0	1271.2	1272.0	1271.2	1271.2
10°	1271.2	1269.5	1268.7	1267.0	1267.0	1265.4	1264.5	1264.5	1264.5	1263.7
12.5°	1265.4	1263.7	1262.9	1261.2	1260.4	1258.7	1257.9	1258.7	1257.1	1257.1
15°	1258.7	1257.1	1256.3	1256.3	1254.6	1252.9	1252.1	1250.4	1250.4	1250.4
17.5°	1252.9	1251.3	1252.1	1250.4	1249.6	1248.0	1248.0	1244.6	1244.6	1243.8
20°	1247.1	1245.5	1245.5	1244.6	1244.6	1243.0	1240.5	1238.8	1238.0	1238.0
22.5°	1239.7	1237.2	1233.0	1227.2	1223.9	1221.4	1220.6	1218.1	1217.3	1215.6
25°	1228.1	1221.4	1212.3	1202.4	1192.4	1187.4	1185.8	1182.5	1182.5	1182.5
27.5°	1214.0	1201.5	1189.1	1174.2	1159.2	1149.3	1142.6	1139.3	1137.7	1137.7
30°	1195.7	1180.0	1162.6	1143.5	1126.9	1108.7	1097.0	1090.4	1087.1	1087.9
32.5°	1179.1	1159.2	1139.3	1115.3	1092.9	1071.3	1051.4	1041.5	1037.3	1035.7
35°	1162.6	1140.2	1116.1	1090.4	1061.4	1029.9	1003.3	988.4	980.1	981.0
37.5°	1150.1	1123.6	1097.0	1065.5	1032.4	994.2	960.2	936.2	926.2	927.9
40°	1136.8	1107.0	1078.0	1041.5	1002.5	956.9	913.0	880.6	869.0	866.5
42.5°	1124.4	1089.6	1056.4	1017.4	968.5	917.1	863.2	825.1	807.6	805.2
45°	1108.7	1069.7	1034.0	989.2	935.3	871.5	808.5	758.7	740.5	733.0
47.5°	1087.9	1044.8	1005.0	953.6	894.7	822.6	743.8	682.4	659.2	653.4
50°	1057.2	1007.5	966.9	908.8	837.5	757.9	670.0	594.5	563.9	559.7
52.5°	1016.6	966.0	920.4	854.1	767.0	673.3	573.8	495.9	460.2	457.7
55°	967.7	913.0	863.2	788.6	686.6	578.0	474.3	375.6	340.8	336.7
57.5°	910.5	854.1	800.2	708.1	590.4	469.3	349.1	254.6	221.4	213.1
60°	847.5	789.4	728.9	616.9	461.0	332.5	211.4	135.2	110.3	102.0
62.5°	786.1	723.1	659.2	508.3	315.9	189.9	96.2	39.0	24.9	24.0
65°	713.9	654.2	588.7	409.6	199.8	85.4	28.2	0.8	0.0	0.0
67.5°	630.2	579.6	521.6	366.5	176.6	74.6	24.0	0.8	0.0	0.0
70°	540.6	500.8	449.4	315.1	151.7	63.0	20.7	0.0	0.0	0.0
72.5°	446.1	412.1	374.0	262.0	126.0	52.2	16.6	0.0	0.0	0.0
75°	349.9	328.4	294.4	207.3	97.8	39.8	12.4	0.0	0.0	0.0
77.5°	259.5	242.1	217.3	152.6	73.8	29.0	9.1	0.0	0.0	0.0
80°	175.0	161.7	147.6	103.7	49.8	19.1	5.8	0.0	0.0	0.0
82.5°	102.0	92.0	82.9	58.9	27.4	10.8	2.5	0.0	0.0	0.0
85°	41.5	38.1	36.5	24.9	10.8	3.3	0.8	0.0	0.0	0.0
87.5°	5.0	4.1	4.1	2.5	0.8	0.0	0.0	0.0	0.0	0.0
90°	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	0.8	0.0	0.0	0.0	0.0	0.0
95°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0
97.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0
100°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
102.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
105°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
107.5°	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

Scaled Data Report

REPORT NUMBER: P821529
CATALOG NUMBER: TT-D2-740-12VDC-CQ-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
112.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
115°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
117.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
120°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
122.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
125°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
127.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
130°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
132.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
135°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
137.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0
140°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0
142.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	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
147.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.8
150°	0.8	0.8	0.8	0.8	0.8	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
155°	0.8	0.8	0.8	0.8	0.8	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
160°	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	0.0	0.0	0.0	0.0	0.0
165°	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	0.0	0.0	0.0	0.0	0.0
170°	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	0.0	0.0	0.0	0.0	0.0
175°	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	0.0	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

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

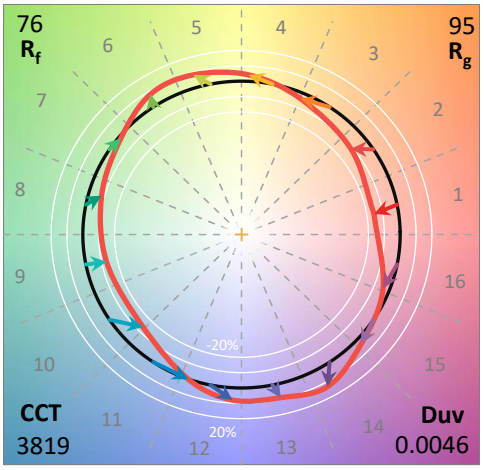
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

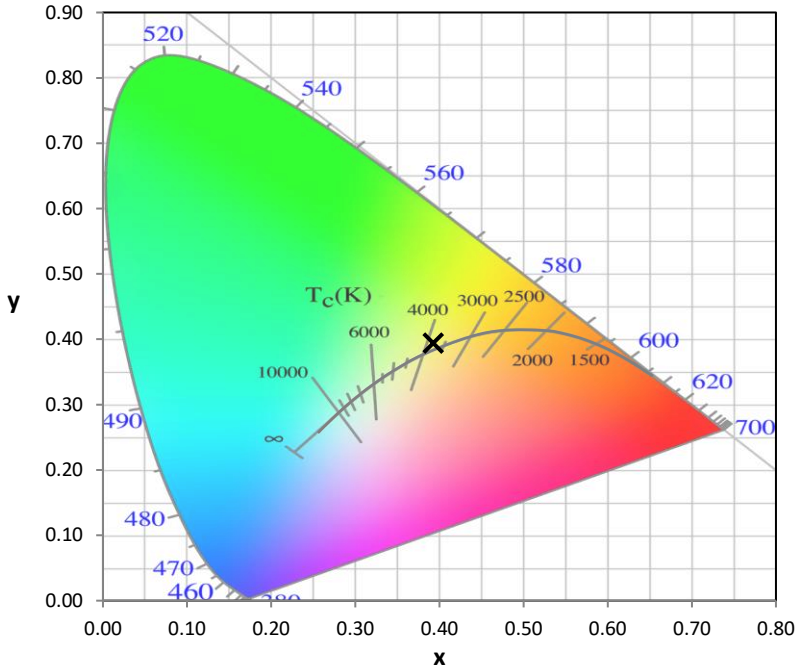
Stabilization Time:	30M
Operation Time:	1H 30M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-5

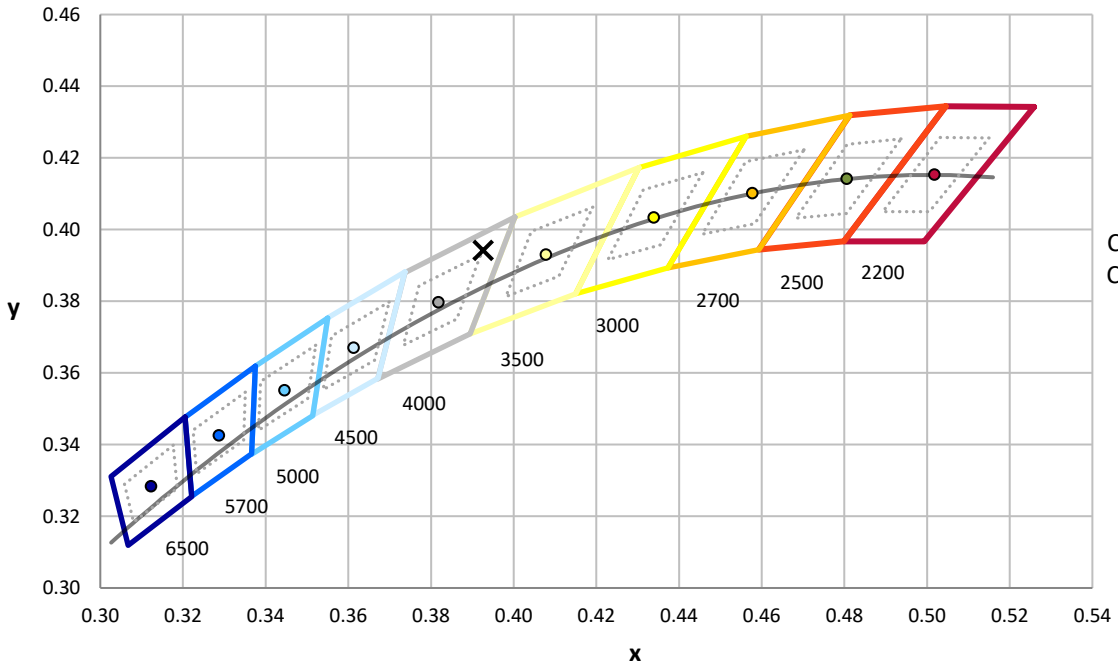
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

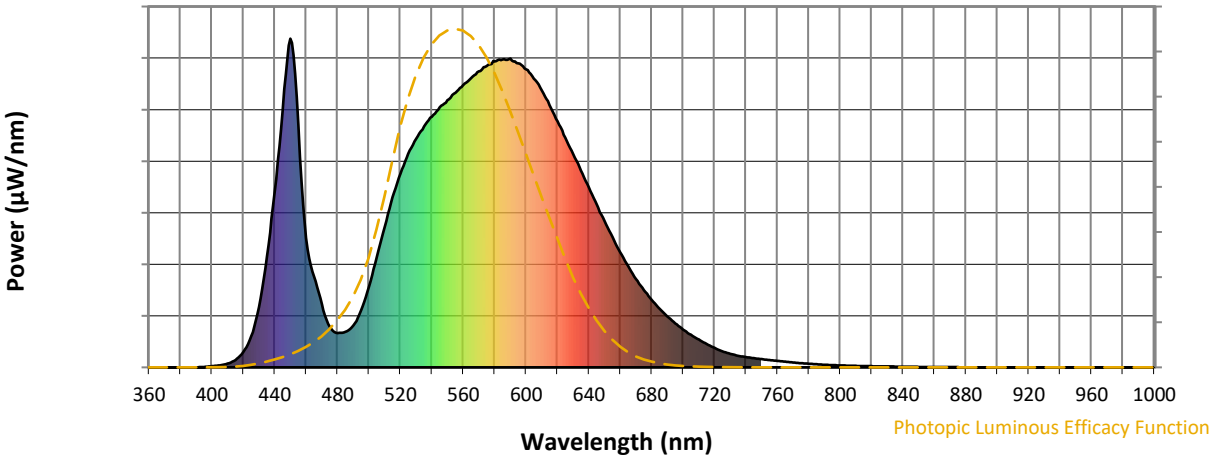


CCT = 3819K
CIE x = 0.3926
CIE y = 0.3942
Duv = 0.0046

Point lies inside the ANSI 4000K 7-step quadrangle

REPORT NUMBER: SP1-2407-176-5

Photopic Flux vs. Wavelength

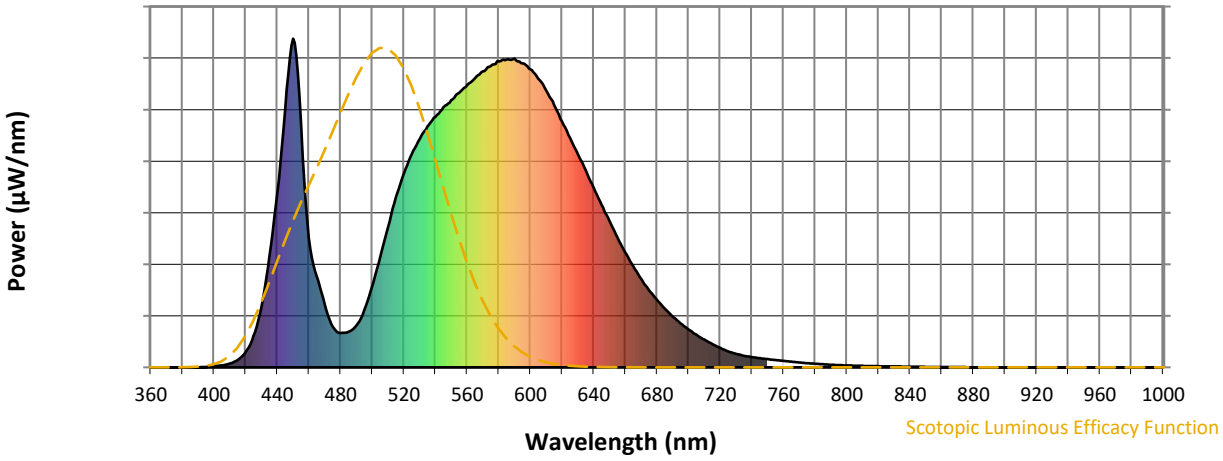


Photopic Lumens: NR

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

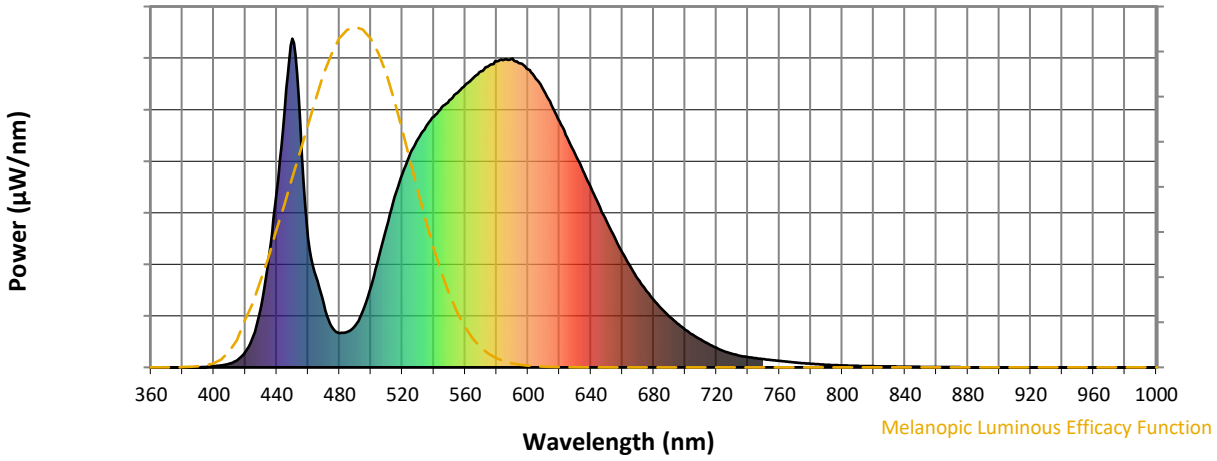


Scotopic Lumens: NR **S/P: 1.45**

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			

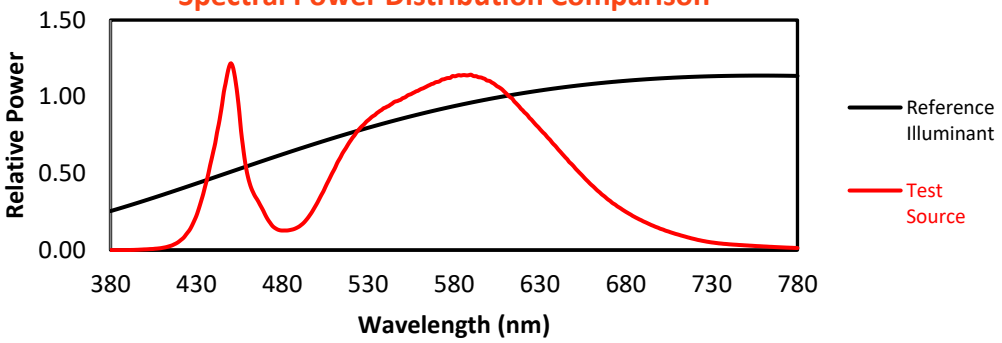
REPORT NUMBER: SP1-2407-176-5

TM-30-18

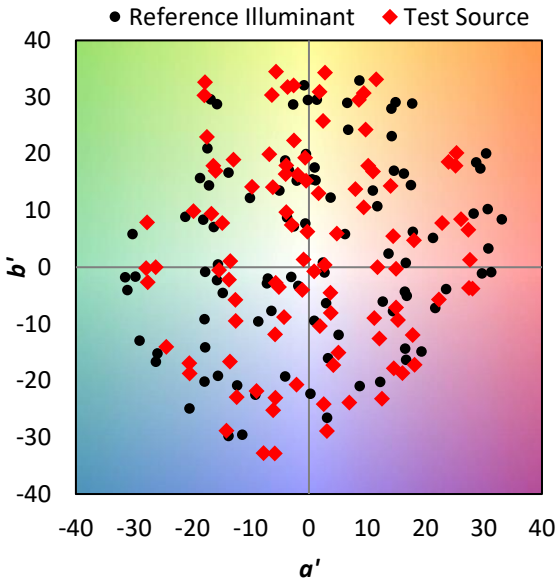
Summary

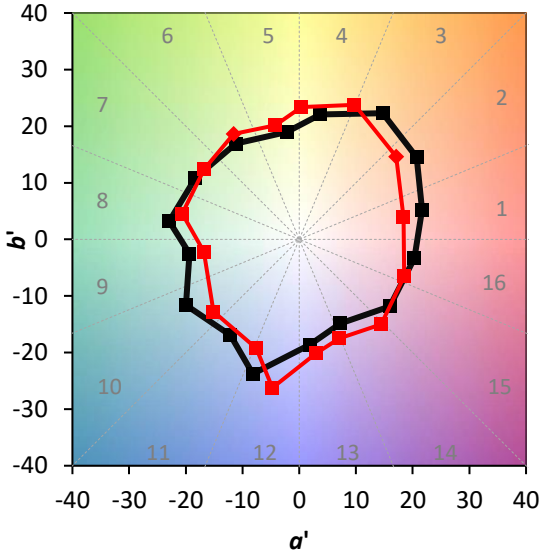
R_f = 75.6
R_g = 94.8
CIE R_a = 72.9
R_9 = -21.5

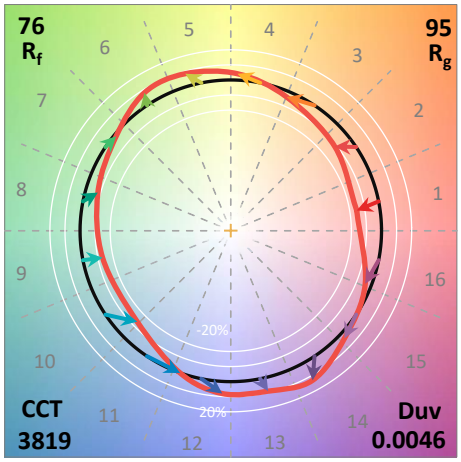
Spectral Power Distribution Comparison

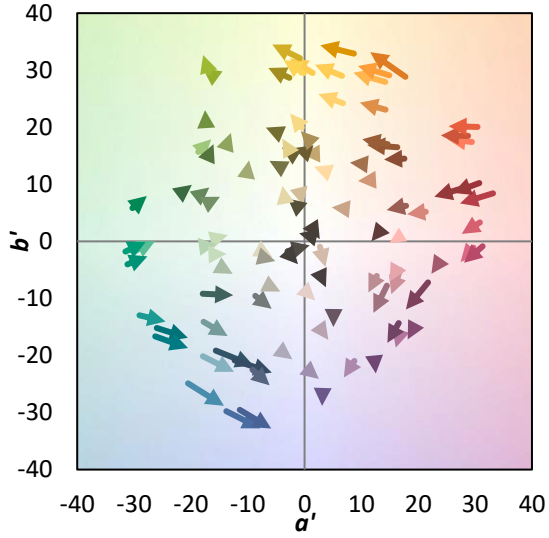


Color Vector Graphics







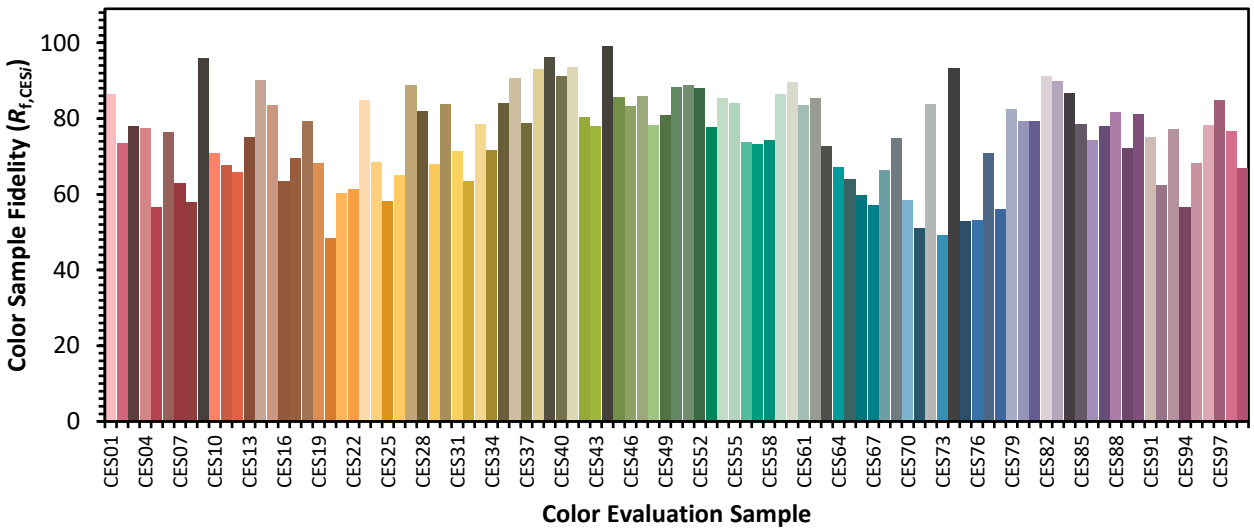


REPORT NUMBER: SP1-2407-176-5

TM-30-18

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

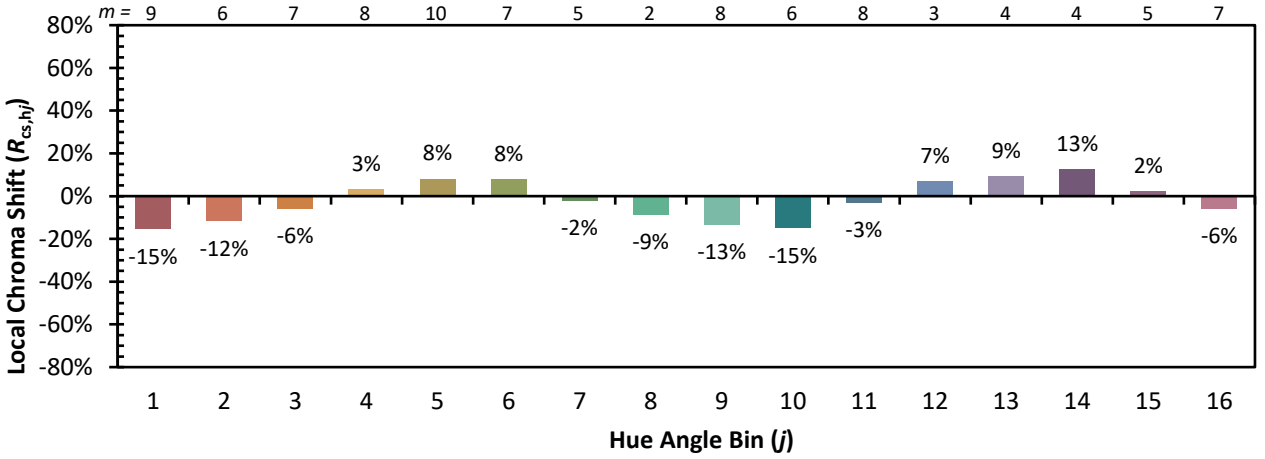
CES01 = 85	CES26 = 65	CES51 = 89	CES76 = 53
CES02 = 61	CES27 = 89	CES52 = 88	CES77 = 71
CES03 = 30	CES28 = 82	CES53 = 78	CES78 = 56
CES04 = 70	CES29 = 68	CES54 = 85	CES79 = 83
CES05 = 48	CES30 = 84	CES55 = 84	CES80 = 79
CES06 = 50	CES31 = 71	CES56 = 74	CES81 = 79
CES07 = 40	CES32 = 63	CES57 = 73	CES82 = 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	

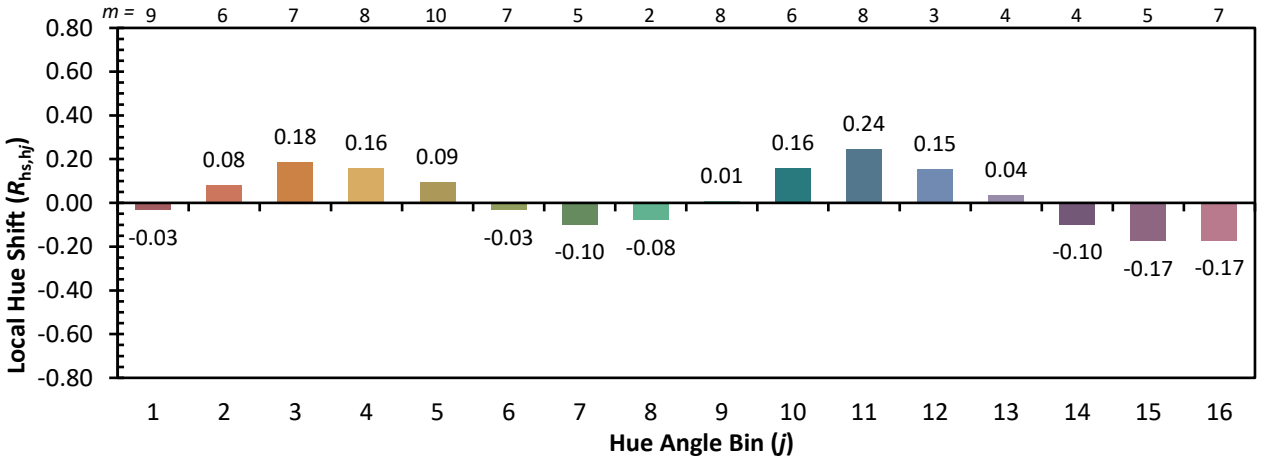


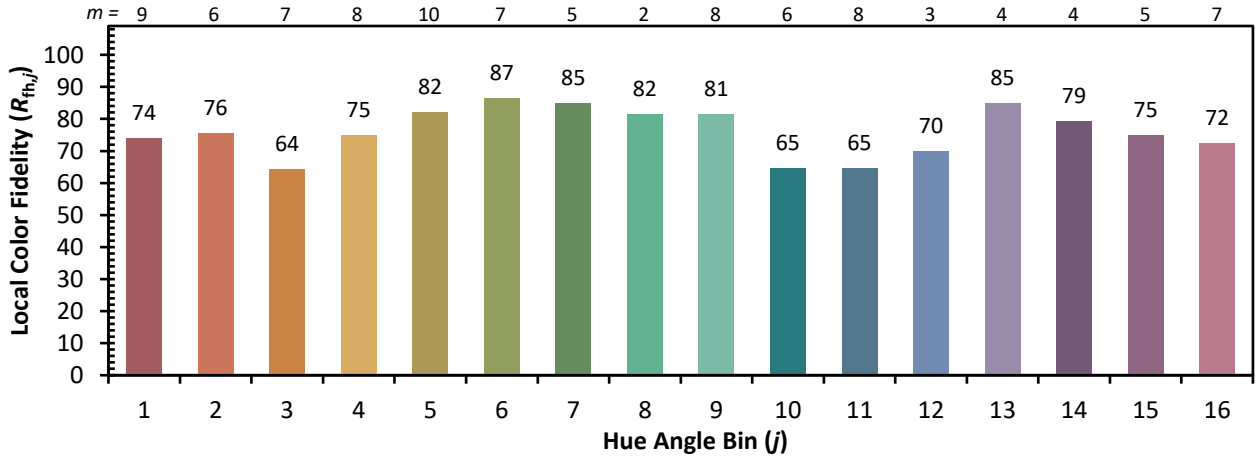
REPORT NUMBER: SP1-2407-176-5

TM-30-18

Color Rendition by Hue-Angle Bin



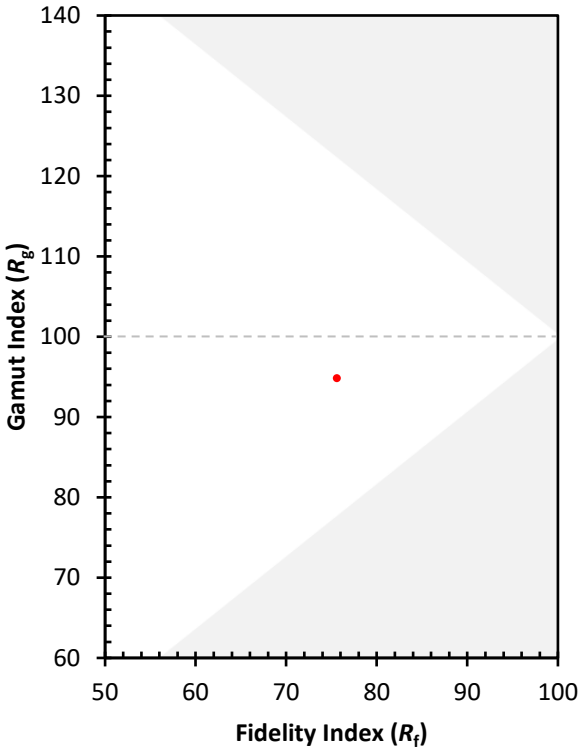


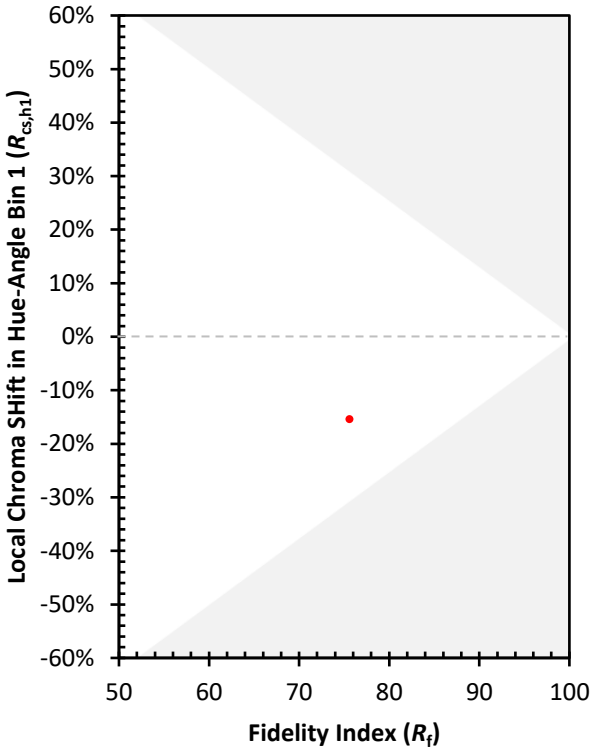


REPORT NUMBER: SP1-2407-176-5

TM-30-18

Measure Comparisons





(END OF REPORT)