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: P821203

Luminaire Tested: **TT-D2-735-24VDC-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:	P821203
	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-D2-735-24VDC-CQ-HSS
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE
	3500K, 70 CRI LEDS AND CONCENTRATED DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4168.1 lumens
Efficiency:	N/A
Efficacy:	109.7 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U1 - G1

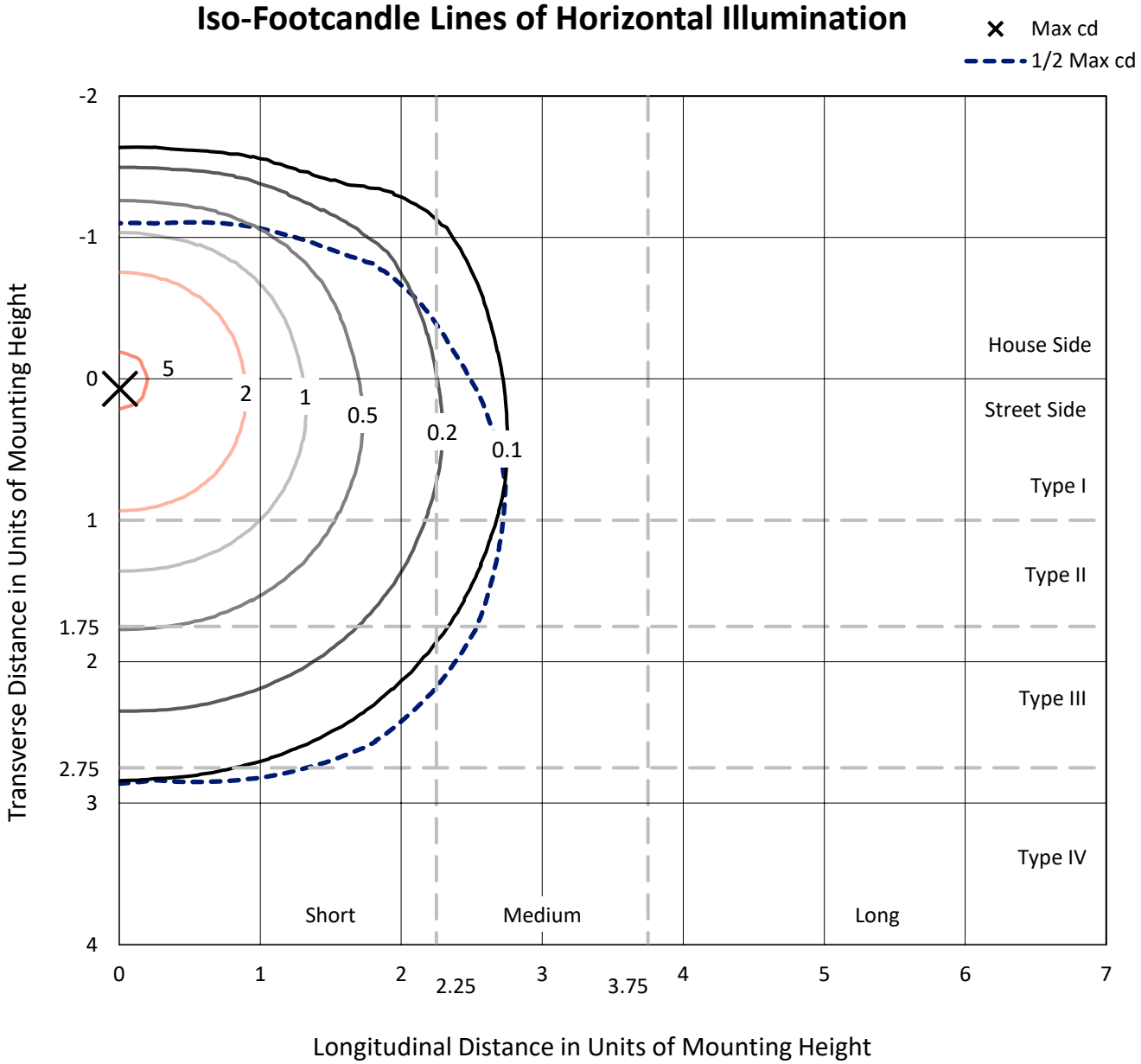
Input Watts (W):	38
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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

Scaled Data Report

REPORT NUMBER: P821203
CATALOG NUMBER: TT-D2-735-24VDC-CQ-HSS

Iso-Footcandle Lines of Horizontal Illumination



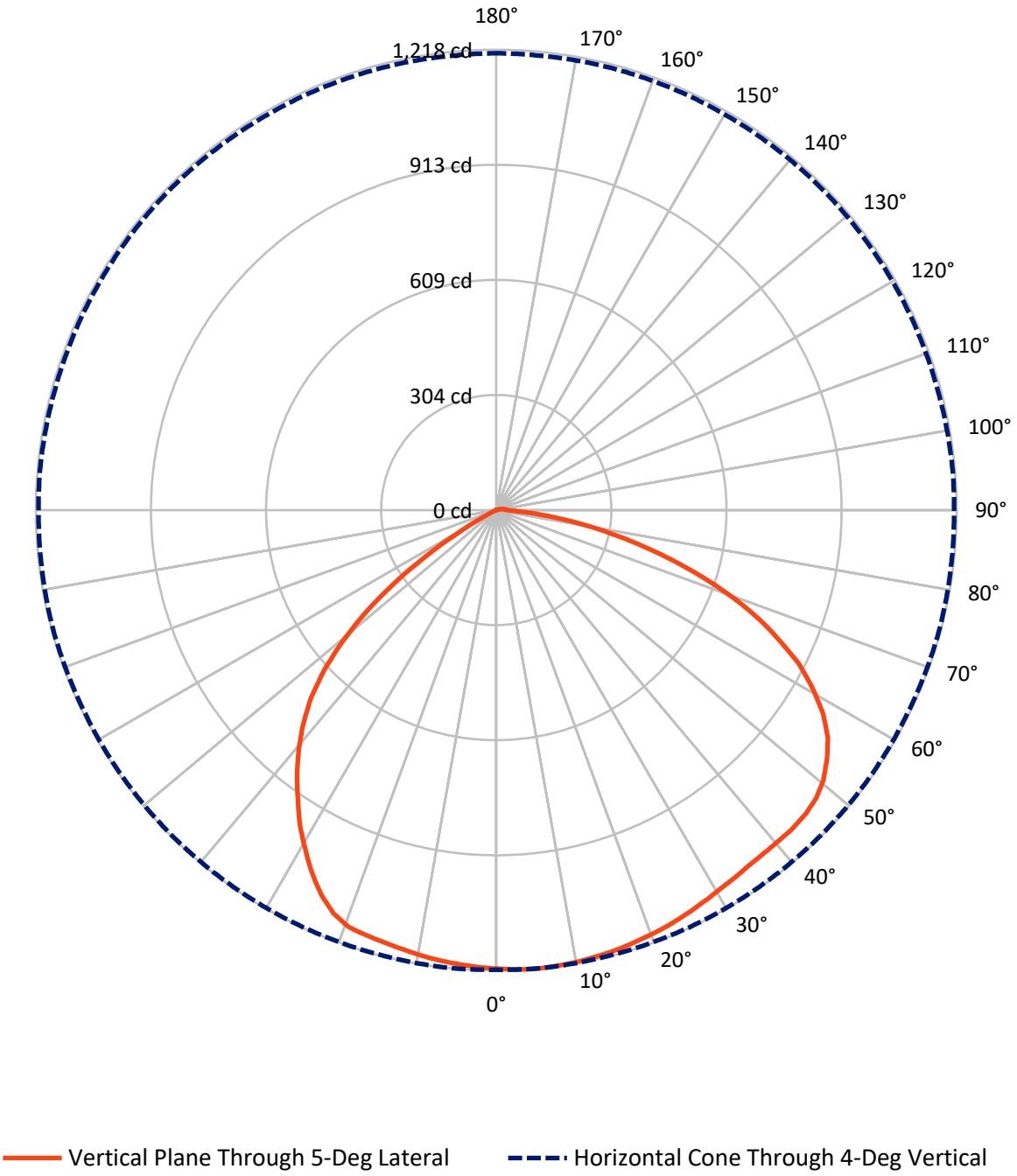
Based on 15 foot mounting height. Maximum calculated value = 5.4 fc
Type IV - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P821203
CATALOG NUMBER: TT-D2-735-24VDC-CQ-HSS

Luminous Intensity Polar Plot



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

Scaled Data Report

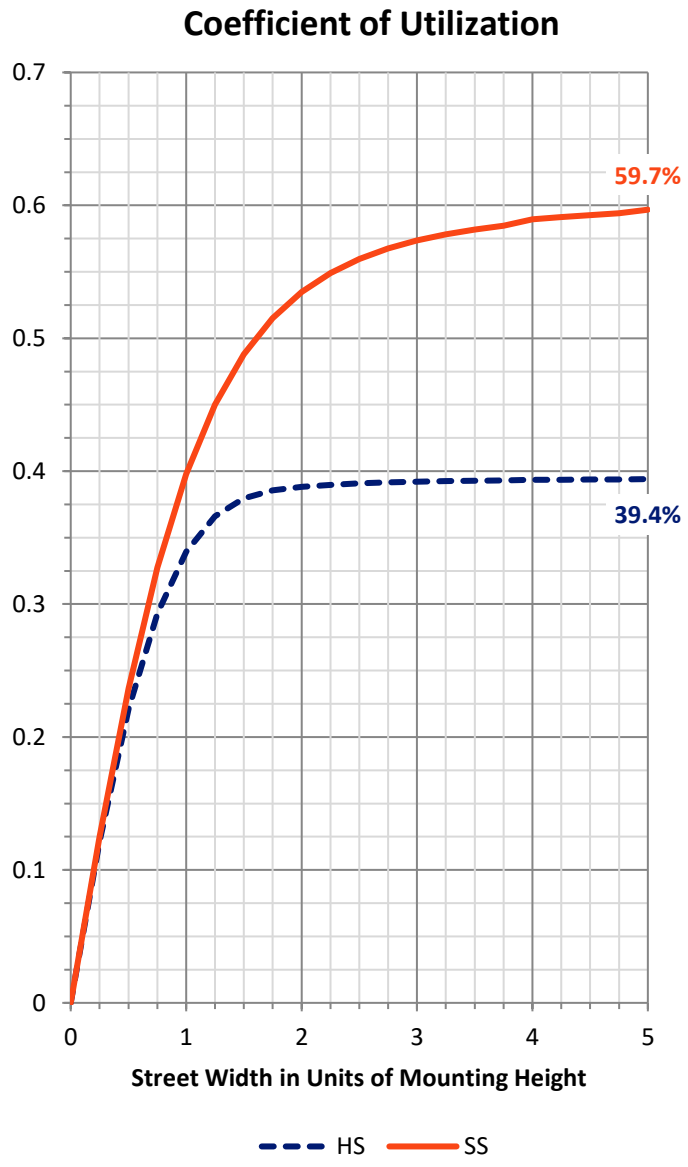
REPORT NUMBER: P821203
CATALOG NUMBER: TT-D2-735-24VDC-CQ-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1651.7	2.2	1653.9
	% Fixture	39.6	0.1	39.7
Street Side	Lumens	2502.5	11.7	2514.2
	% Fixture	60.0	0.3	60.3
Total	Lumens	4154.3	13.8	4168.1
	% Fixture	99.7	0.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.4	2.8
10°-20°	337.9	8.1
20°-30°	532.3	12.8
30°-40°	677.5	16.3
40°-50°	782.5	18.8
50°-60°	766.2	18.4
60°-70°	570.7	13.7
70°-80°	309.1	7.4
80°-90°	62.7	1.5
90°-100°	7.9	0.2
100°-110°	3.1	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°	4154.3	99.7
0°-180°	4168.1	100.0



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

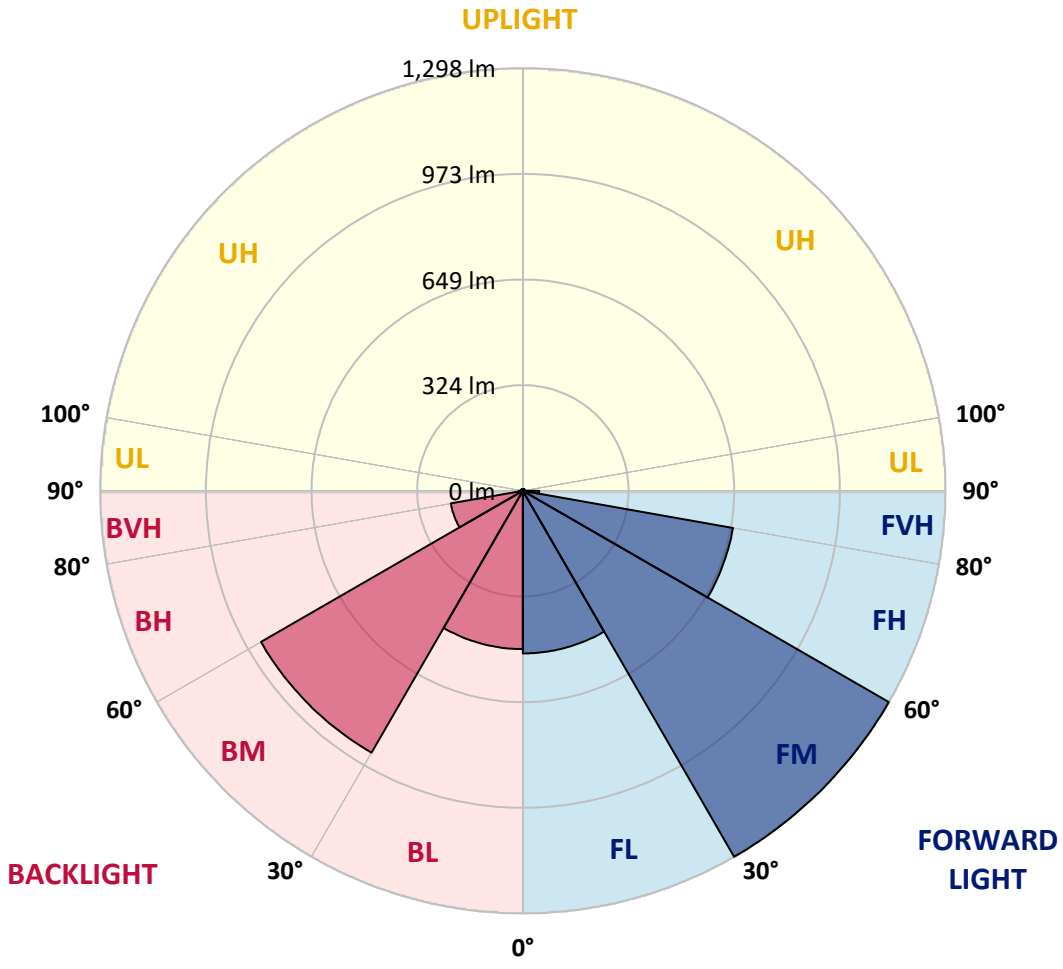
Scaled Data Report

REPORT NUMBER: P821203
CATALOG NUMBER: TT-D2-735-24VDC-CQ-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	499.4	12.0			
FM	(30°-60°)	1297.7	31.1			
FH	(60°-80°)	655.3	15.7			G0/660
FVH	(80°-90°)	50.0	1.2			G1/100
BL	(0°-30°)	486.1	11.7	B1/500		
BM	(30°-60°)	928.5	22.3	B1/1000		
BH	(60°-80°)	224.5	5.4	B1/500		G1/500
BVH	(80°-90°)	12.6	0.3			G1/100
UL	(90°-100°)	7.9	0.2		U1/10	
UH	(100°-180°)	5.9	0.1		U1/10	

BUG Rating: B1-U1-G1
Type IV Short



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

Scaled Data Report

REPORT NUMBER: P821203
CATALOG NUMBER: TT-D2-735-24VDC-CQ-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1214.0	1214.0	1214.0	1214.0	1214.0	1214.0	1214.0	1214.0	1214.0	1214.0	1214.0
2.5°	1215.5	1217.1	1216.3	1216.3	1214.7	1215.5	1214.7	1214.7	1214.0	1213.2	1213.2
4°	1216.3	1217.9	1216.3	1216.3	1215.5	1215.5	1214.7	1213.2	1214.0	1211.6	1210.8
5°	1217.1	1217.9	1217.1	1217.1	1215.5	1214.7	1213.2	1213.2	1212.4	1210.8	1210.8
7.5°	1215.5	1216.3	1216.3	1215.5	1214.0	1212.4	1211.6	1210.8	1210.0	1207.7	1207.7
10°	1212.4	1214.0	1212.4	1212.4	1211.6	1210.0	1207.7	1206.9	1204.6	1203.0	1202.2
12.5°	1209.3	1210.0	1209.3	1209.3	1207.7	1205.3	1204.6	1203.0	1199.9	1197.5	1197.5
15°	1204.6	1206.1	1205.3	1204.6	1203.8	1201.4	1199.1	1196.7	1194.4	1192.0	1192.0
17.5°	1199.1	1199.9	1200.6	1199.9	1198.3	1196.7	1194.4	1191.2	1188.9	1186.5	1185.7
20°	1192.8	1194.4	1194.4	1194.4	1192.8	1191.2	1188.1	1185.0	1183.4	1180.3	1179.5
22.5°	1186.5	1188.1	1187.3	1188.1	1187.3	1185.0	1181.8	1178.7	1175.6	1173.2	1171.6
25°	1180.3	1180.3	1180.3	1180.3	1180.3	1177.1	1174.0	1170.1	1166.9	1163.0	1163.0
27.5°	1172.4	1172.4	1173.2	1173.2	1172.4	1170.1	1166.2	1161.5	1156.7	1152.8	1151.3
30°	1165.4	1164.6	1166.2	1167.7	1166.9	1164.6	1159.9	1154.4	1147.3	1141.9	1137.2
32.5°	1156.7	1159.1	1160.7	1163.8	1164.6	1161.5	1156.0	1148.9	1141.9	1131.7	1123.0
35°	1153.6	1153.6	1157.5	1162.2	1163.8	1162.2	1154.4	1146.6	1136.4	1121.5	1111.3
37.5°	1150.5	1151.3	1157.5	1164.6	1166.9	1166.9	1158.3	1148.1	1134.0	1112.9	1100.3
40°	1148.9	1150.5	1158.3	1168.5	1174.8	1174.0	1163.8	1151.3	1134.0	1106.6	1090.9
42.5°	1147.3	1150.5	1159.1	1173.2	1182.6	1181.8	1170.9	1154.4	1132.5	1098.8	1080.7
45°	1145.0	1147.3	1159.1	1177.1	1189.7	1192.0	1179.5	1158.3	1132.5	1091.7	1068.2
47.5°	1137.9	1138.7	1154.4	1175.6	1194.4	1197.5	1185.0	1159.9	1129.3	1079.9	1052.5
50°	1119.1	1121.5	1139.5	1167.7	1189.7	1194.4	1183.4	1156.0	1121.5	1060.4	1027.4
52.5°	1094.8	1094.8	1116.8	1148.1	1174.8	1182.6	1172.4	1141.9	1101.9	1031.4	993.7
55°	1058.8	1064.3	1087.0	1119.9	1148.9	1159.9	1145.8	1116.0	1069.8	994.5	953.0
57.5°	1018.0	1019.6	1043.1	1082.3	1112.1	1119.1	1107.4	1072.1	1027.4	950.6	901.3
60°	959.3	962.4	992.2	1026.7	1058.8	1068.2	1053.3	1018.0	971.0	894.2	844.1
62.5°	894.2	898.9	925.6	960.8	991.4	1006.3	988.3	951.4	905.2	826.8	782.9
65°	815.8	817.4	846.4	886.4	916.9	922.4	906.7	870.7	824.5	749.2	710.0
67.5°	725.7	733.5	761.8	791.5	818.2	824.5	813.5	771.9	735.1	668.5	630.1
70°	638.7	634.8	658.3	688.1	712.4	717.9	705.3	666.9	632.5	569.8	540.0
72.5°	533.7	530.6	555.6	578.4	601.9	598.8	586.2	555.6	525.9	472.6	445.1
75°	427.9	424.8	444.4	464.0	475.7	477.3	468.7	445.9	413.8	372.3	351.1
77.5°	324.5	327.6	336.2	352.7	363.6	368.3	353.5	330.7	310.3	278.2	262.5
80°	231.2	232.0	235.1	246.9	254.7	254.7	247.7	229.6	206.9	184.2	176.3
82.5°	145.8	148.9	148.9	160.7	160.7	154.4	151.3	139.5	127.7	109.7	98.7
85°	79.9	78.4	83.1	83.9	83.1	78.4	73.7	66.6	58.8	46.2	41.5
87.5°	35.3	34.5	34.5	34.5	33.7	30.6	25.9	20.4	14.1	8.6	6.3
90°	27.4	27.4	26.6	25.1	22.7	20.4	16.5	12.5	7.8	3.1	1.6
92.5°	25.1	25.1	24.3	23.5	21.2	18.8	14.9	11.0	7.1	3.1	1.6
95°	21.9	21.2	21.2	19.6	18.0	15.7	13.3	9.4	6.3	2.4	1.6
97.5°	18.0	17.2	17.2	16.5	14.9	12.5	11.0	7.8	5.5	2.4	1.6
100°	13.3	14.1	13.3	12.5	11.8	10.2	8.6	6.3	3.9	1.6	1.6
102.5°	10.2	10.2	9.4	9.4	8.6	7.8	6.3	4.7	3.1	1.6	0.8
105°	7.1	7.1	7.1	6.3	6.3	5.5	4.7	3.1	2.4	1.6	0.8
107.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.1	2.4	1.6	0.8	0.8

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

Scaled Data Report

REPORT NUMBER: P821203
CATALOG NUMBER: TT-D2-735-24VDC-CQ-HSS

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	2.4	2.4	2.4	2.4	2.4	2.4	1.6	1.6	0.8	0.8	0.8
112.5°	0.8	0.8	1.6	1.6	1.6	1.6	1.6	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: P821203
CATALOG NUMBER: TT-D2-735-24VDC-CQ-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1214.0	1214.0	1214.0	1214.0	1214.0	1214.0	1214.0	1214.0	1214.0	1214.0
2.5°	1212.4	1210.0	1211.6	1210.8	1211.6	1210.0	1210.0	1210.0	1210.8	1209.3
4°	*1211.6*	*1210.0*	*1210.0*	*1210.0*	*1210.0*	*1208.5*	*1208.5*	*1208.5*	*1207.7*	*1208.5*
5°	1210.0	1209.3	1208.5	1207.7	1208.5	1206.9	1206.1	1206.1	1206.1	1206.9
7.5°	1206.9	1204.6	1204.6	1202.2	1203.0	1202.2	1201.4	1202.2	1201.4	1201.4
10°	1201.4	1199.9	1199.1	1197.5	1197.5	1195.9	1195.2	1195.2	1195.2	1194.4
12.5°	1195.9	1194.4	1193.6	1192.0	1191.2	1189.7	1188.9	1189.7	1188.1	1188.1
15°	1189.7	1188.1	1187.3	1187.3	1185.7	1184.2	1183.4	1181.8	1181.8	1181.8
17.5°	1184.2	1182.6	1183.4	1181.8	1181.0	1179.5	1179.5	1176.3	1176.3	1175.6
20°	1178.7	1177.1	1177.1	1176.3	1176.3	1174.8	1172.4	1170.9	1170.1	1170.1
22.5°	1171.6	1169.3	1165.4	1159.9	1156.7	1154.4	1153.6	1151.3	1150.5	1148.9
25°	1160.7	1154.4	1145.8	1136.4	1127.0	1122.3	1120.7	1117.6	1117.6	1117.6
27.5°	1147.3	1135.6	1123.8	1109.7	1095.6	1086.2	1079.9	1076.8	1075.2	1075.2
30°	1130.1	1115.2	1098.8	1080.7	1065.1	1047.8	1036.8	1030.6	1027.4	1028.2
32.5°	1114.4	1095.6	1076.8	1054.1	1032.9	1012.5	993.7	984.3	980.4	978.8
35°	1098.8	1077.6	1054.9	1030.6	1003.1	973.4	948.3	934.2	926.3	927.1
37.5°	1087.0	1061.9	1036.8	1007.1	975.7	939.7	907.5	884.8	875.4	877.0
40°	1074.5	1046.2	1018.8	984.3	947.5	904.4	862.9	832.3	821.3	819.0
42.5°	1062.7	1029.8	998.4	961.6	915.4	866.8	815.8	779.8	763.3	761.0
45°	1047.8	1011.0	977.3	935.0	884.0	823.7	764.1	717.1	699.8	692.8
47.5°	1028.2	987.5	949.9	901.3	845.6	777.4	703.0	645.0	623.0	617.6
50°	999.2	952.2	913.8	858.9	791.5	716.3	633.2	561.9	532.9	529.0
52.5°	960.8	913.0	869.9	807.2	724.9	636.4	542.3	468.7	435.0	432.6
55°	914.6	862.9	815.8	745.3	648.9	546.2	448.3	355.0	322.1	318.2
57.5°	860.5	807.2	756.3	669.3	558.0	443.6	329.9	240.6	209.2	201.4
60°	800.9	746.1	688.9	583.1	435.7	314.3	199.8	127.7	104.2	96.4
62.5°	743.0	683.4	623.0	480.4	298.6	179.5	90.9	36.8	23.5	22.7
65°	674.8	618.3	556.4	387.2	188.9	80.7	26.6	0.8	0.0	0.0
67.5°	595.6	547.8	493.0	346.4	166.9	70.5	22.7	0.8	0.0	0.0
70°	511.0	473.4	424.8	297.8	143.4	59.6	19.6	0.0	0.0	0.0
72.5°	421.6	389.5	353.5	247.7	119.1	49.4	15.7	0.0	0.0	0.0
75°	330.7	310.3	278.2	195.9	92.5	37.6	11.8	0.0	0.0	0.0
77.5°	245.3	228.8	205.3	144.2	69.7	27.4	8.6	0.0	0.0	0.0
80°	165.4	152.8	139.5	98.0	47.0	18.0	5.5	0.0	0.0	0.0
82.5°	96.4	87.0	78.4	55.6	25.9	10.2	2.4	0.0	0.0	0.0
85°	39.2	36.1	34.5	23.5	10.2	3.1	0.8	0.0	0.0	0.0
87.5°	4.7	3.9	3.9	2.4	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: P821203
CATALOG NUMBER: TT-D2-735-24VDC-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: SP1-2407-176-4

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-735-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-735-U-WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

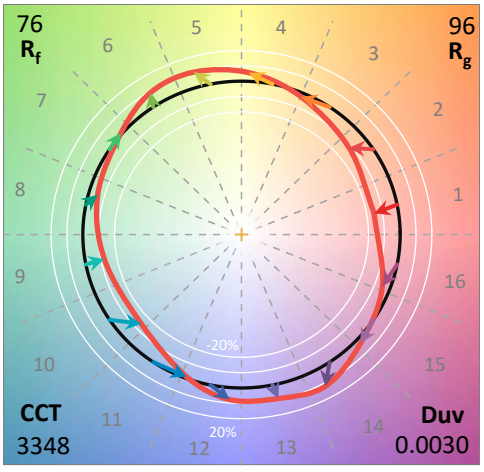
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-4
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-30-735-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	3348	CRI (Ra):	73.4		
CIE u':	0.2384	R1:	70.8	R9:	-19.2
CIE v':	0.5184	R2:	79.9	R10:	52.5
Duv:	0.0030	R3:	87.6	R11:	68.0
CIE x:	0.4177	R4:	72.6	R12:	42.6
CIE y:	0.4036	R5:	69.3	R13:	72.0
CIE z:	0.1787	R6:	71.3	R14:	92.6
Peak Wavelength (nm):	593	R7:	82.1	R15:	63.8
Dominant Wavelength (nm):	580	R8:	53.3		
Purity:	46.5223				

Rf:	75.8
Rg:	95.8



Test Conditions

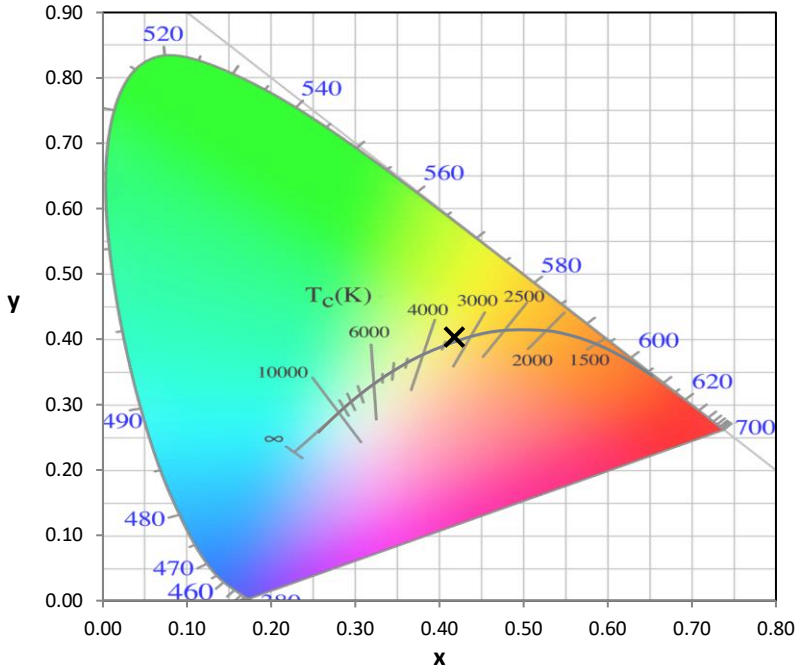
Stabilization Time:	30M
Operation Time:	1H 30M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-4

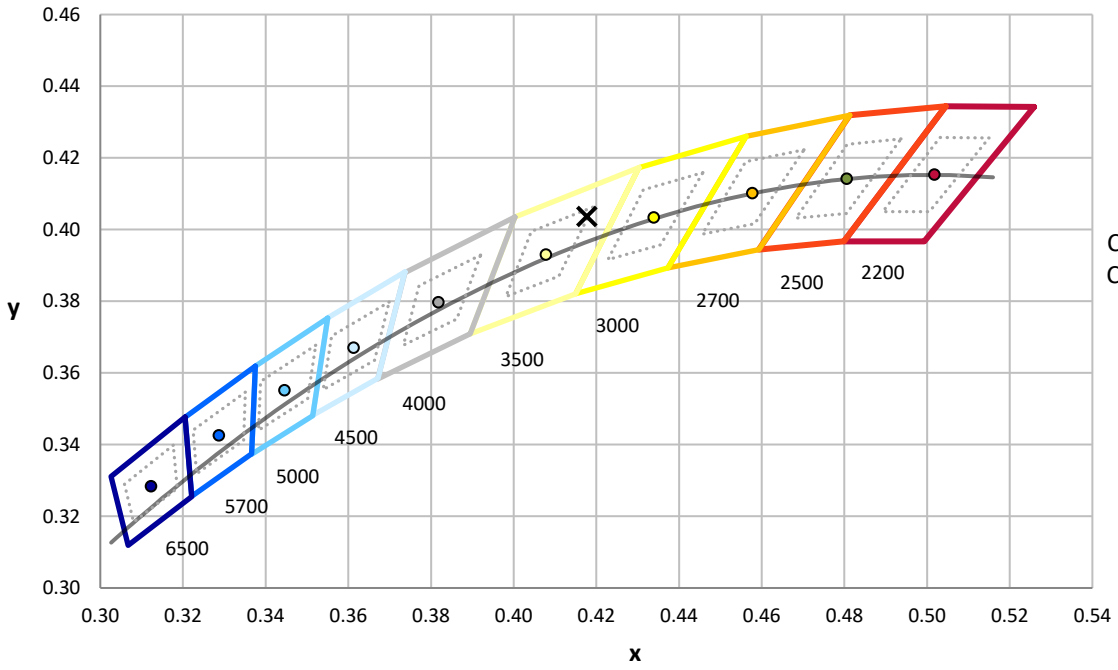
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-176-4

CIE 1931 Chromaticity Diagram



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

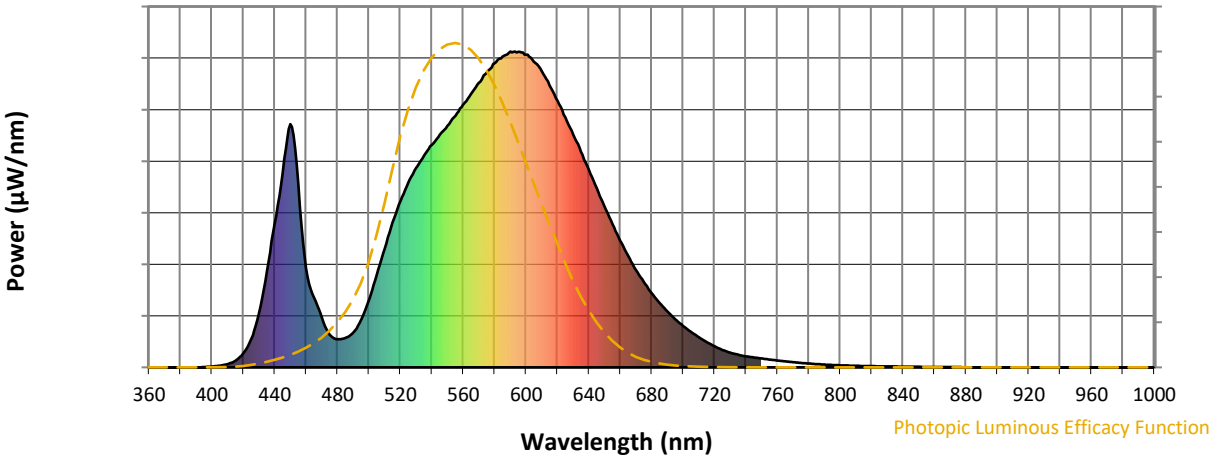


CCT = 3348K
CIE x = 0.4177
CIE y = 0.4036
Duv = 0.0030

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-4

Photopic Flux vs. Wavelength

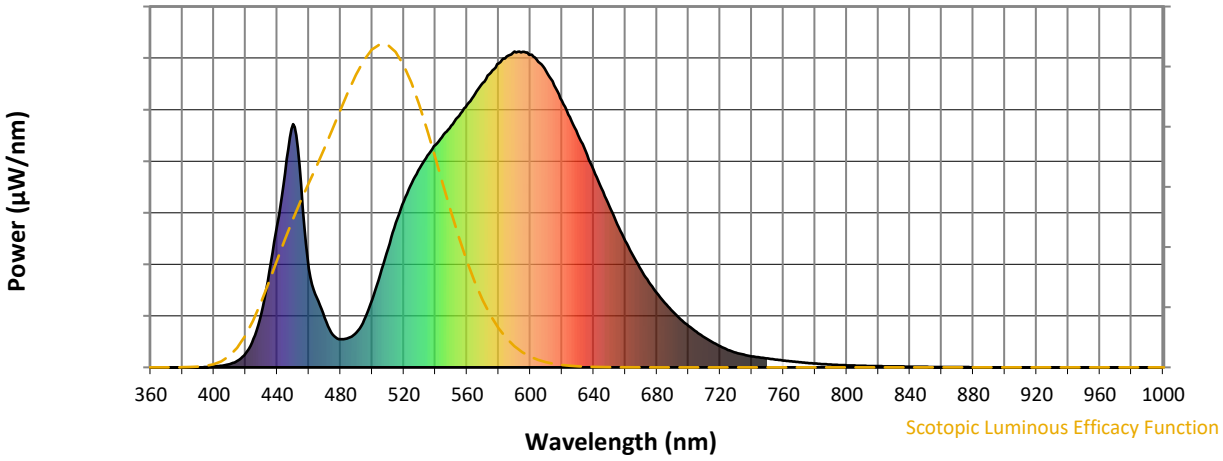


Photopic Lumens: NR

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	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-4

Scotopic Flux vs. Wavelength

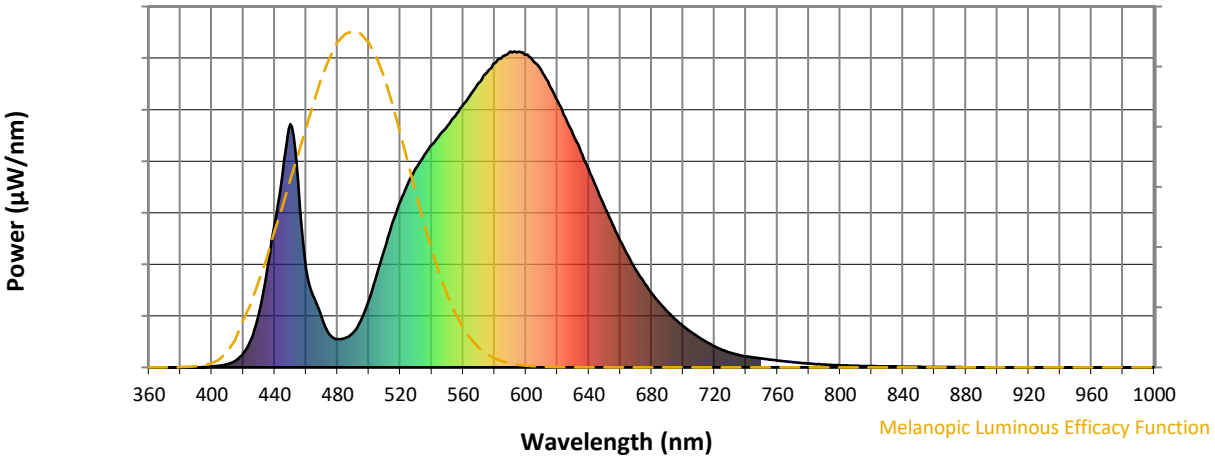


Scotopic Lumens: NR **S/P: 1.31**

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	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-4

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.4**

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	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

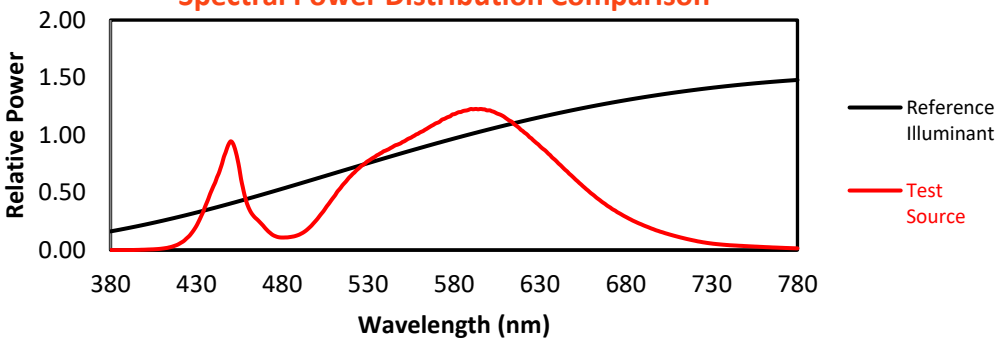
REPORT NUMBER: SP1-2407-176-4

TM-30-18

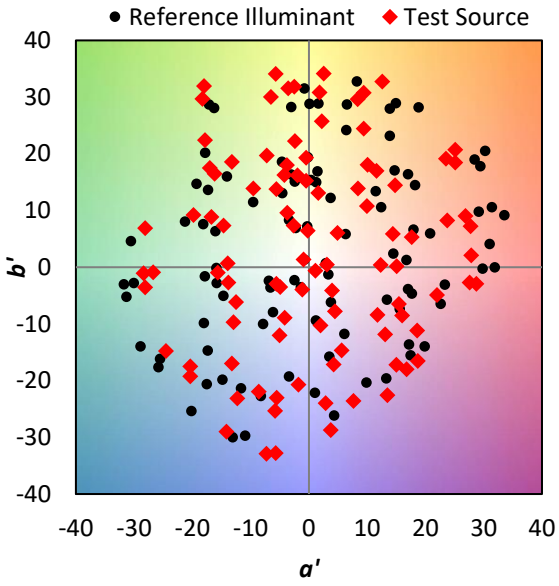
Summary

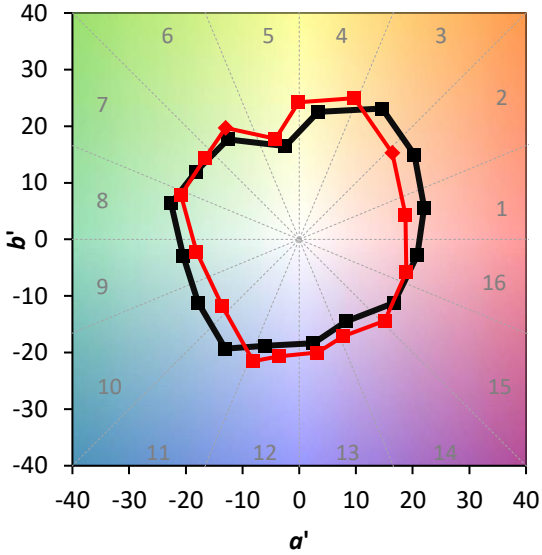
R_f = 75.8
R_g = 95.8
CIE R_a = 73.4
R_9 = -19.2

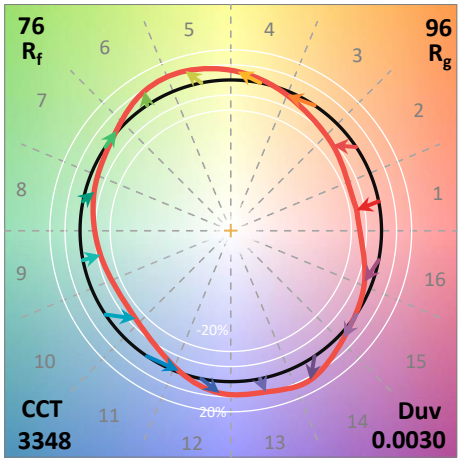
Spectral Power Distribution Comparison

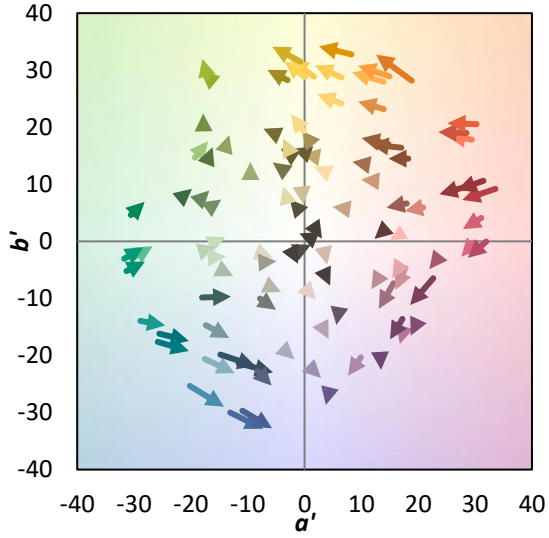


Color Vector Graphics







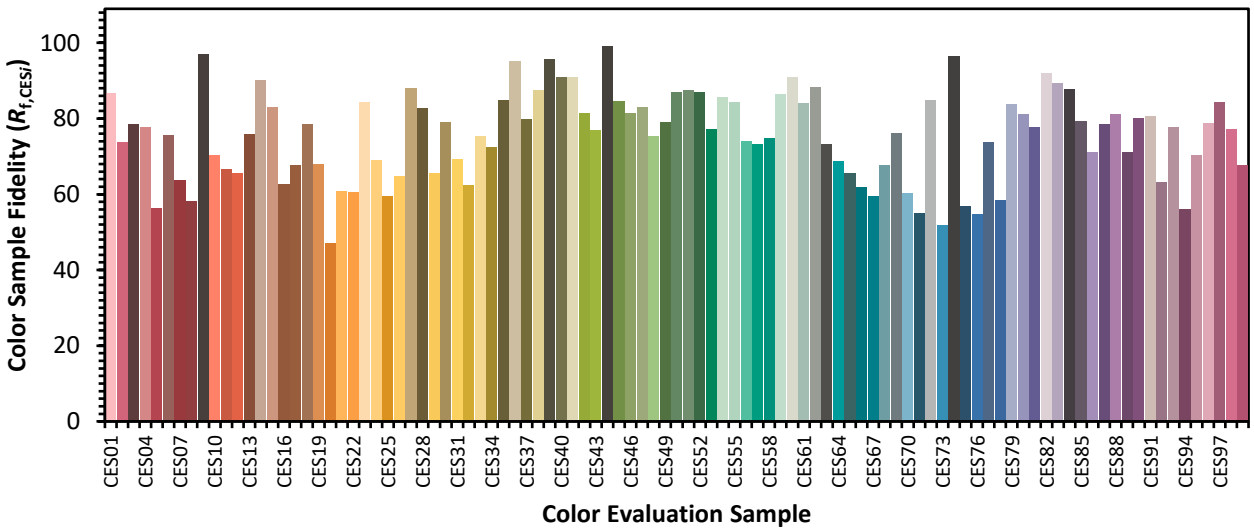


REPORT NUMBER: SP1-2407-176-4

TM-30-18

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

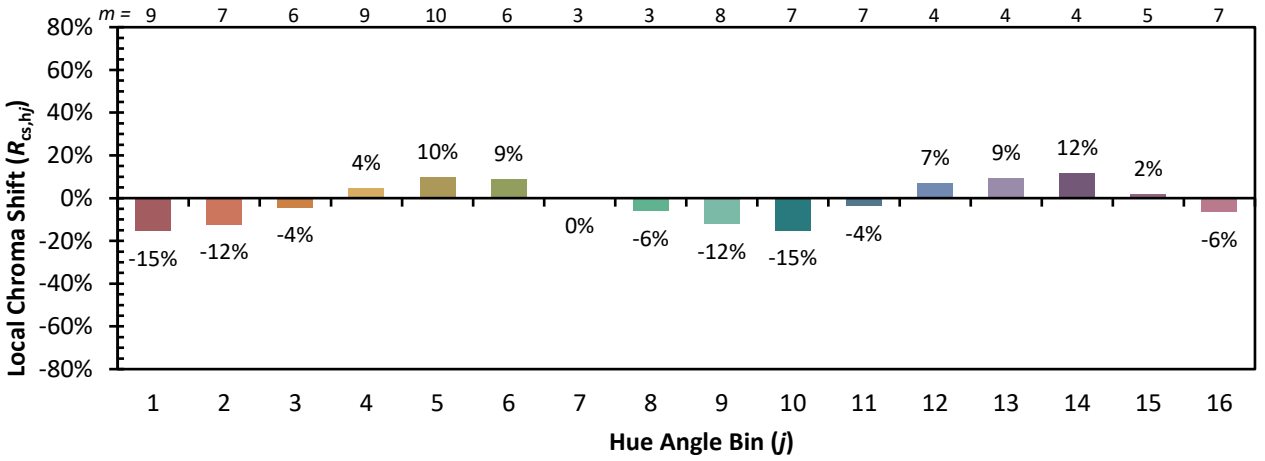
CES01 = 86	CES26 = 65	CES51 = 88	CES76 = 55
CES02 = 62	CES27 = 88	CES52 = 87	CES77 = 74
CES03 = 31	CES28 = 83	CES53 = 77	CES78 = 58
CES04 = 70	CES29 = 66	CES54 = 86	CES79 = 84
CES05 = 48	CES30 = 79	CES55 = 84	CES80 = 81
CES06 = 51	CES31 = 69	CES56 = 74	CES81 = 78
CES07 = 41	CES32 = 62	CES57 = 73	CES82 = 92
CES08 = 40	CES33 = 75	CES58 = 75	CES83 = 89
CES09 = 29	CES34 = 73	CES59 = 87	CES84 = 88
CES10 = 75	CES35 = 85	CES60 = 91	CES85 = 79
CES11 = 58	CES36 = 95	CES61 = 84	CES86 = 71
CES12 = 64	CES37 = 80	CES62 = 88	CES87 = 79
CES13 = 43	CES38 = 88	CES63 = 73	CES88 = 81
CES14 = 74	CES39 = 96	CES64 = 69	CES89 = 71
CES15 = 71	CES40 = 91	CES65 = 66	CES90 = 80
CES16 = 47	CES41 = 91	CES66 = 62	CES91 = 81
CES17 = 50	CES42 = 81	CES67 = 60	CES92 = 63
CES18 = 56	CES43 = 77	CES68 = 68	CES93 = 78
CES19 = 72	CES44 = 99	CES69 = 76	CES94 = 56
CES20 = 65	CES45 = 85	CES70 = 60	CES95 = 70
CES21 = 87	CES46 = 82	CES71 = 55	CES96 = 79
CES22 = 79	CES47 = 83	CES72 = 85	CES97 = 84
CES23 = 92	CES48 = 75	CES73 = 52	CES98 = 77
CES24 = 91	CES49 = 79	CES74 = 96	CES99 = 68
CES25 = 72	CES50 = 87	CES75 = 57	

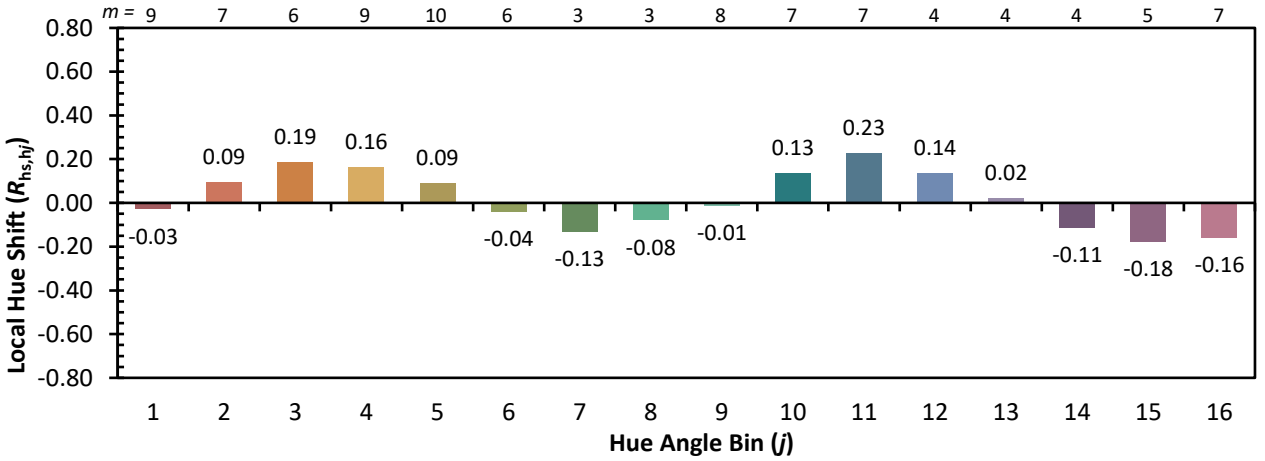


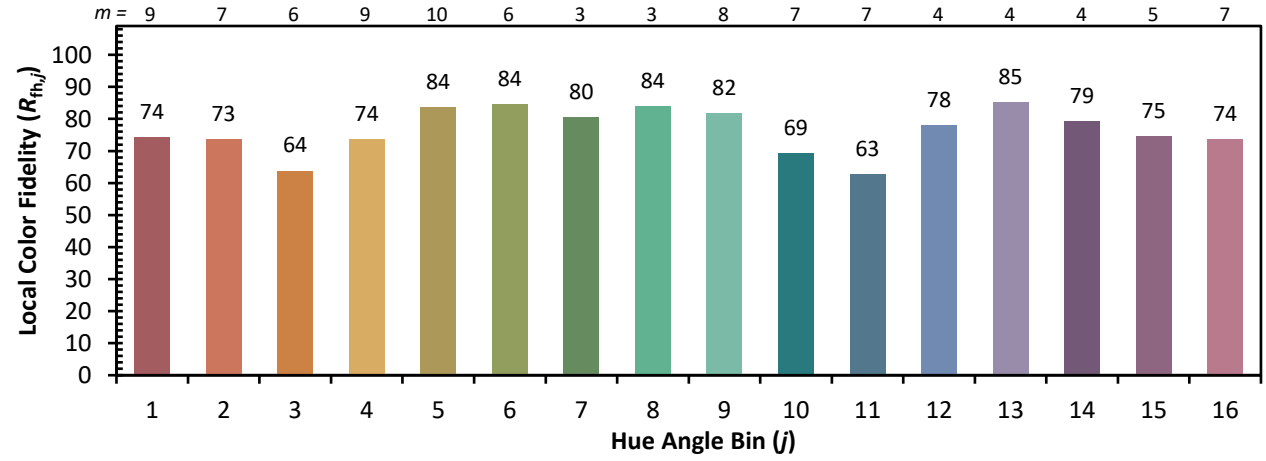
REPORT NUMBER: SP1-2407-176-4

TM-30-18

Color Rendition by Hue-Angle Bin



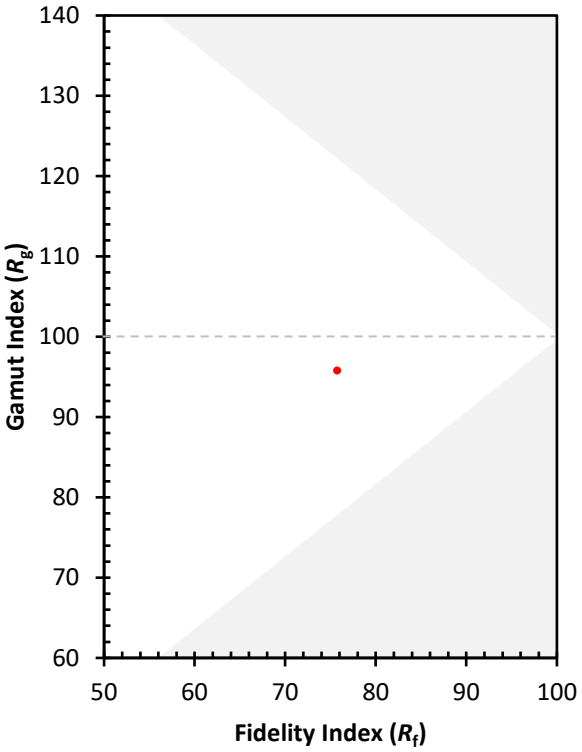


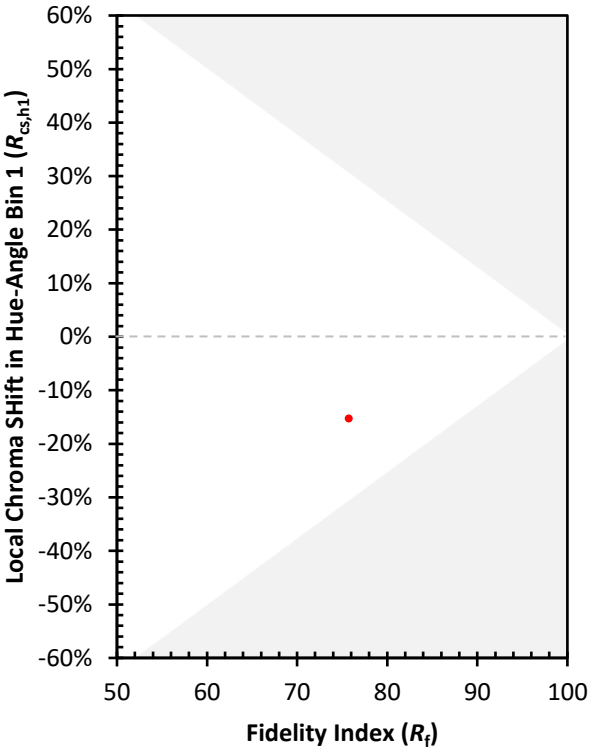


REPORT NUMBER: SP1-2407-176-4

TM-30-18

Measure Comparisons





(END OF REPORT)