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: P821160

Luminaire Tested: **TT-D4-830-24VDC-CQ-UPL**

Issue Date: 7/23/2020

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:	P821160
	REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-2) AND
Test Lab:	INNOVATION CENTER
Issue Date:	7/23/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D4-830-24VDC-CQ-UPL
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
	3000K, 80 CRI LEDS AND CONCENTRATED DISTRIBUTION
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	7495.7 lumens
Efficiency:	N/A
Efficacy:	131.5 lumens/watt
Luminous Opening:	Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification:	Type V - Short
BUG Rating:	B2 - U4 - G1

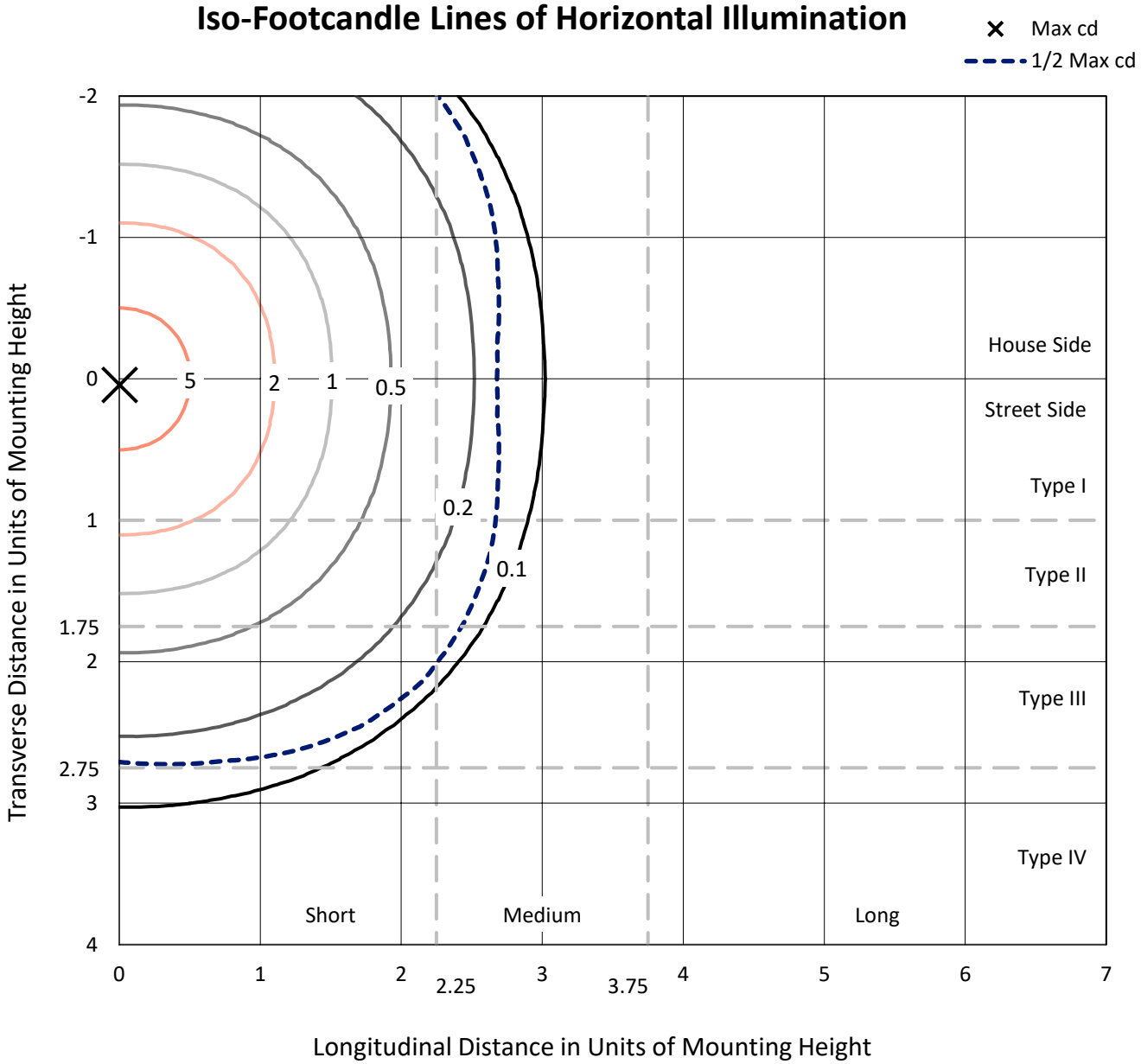
Input Watts (W):	57
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Scaled Data Report

REPORT NUMBER: P821160
CATALOG NUMBER: TT-D4-830-24VDC-CQ-UPL

Iso-Footcandle Lines of Horizontal Illumination



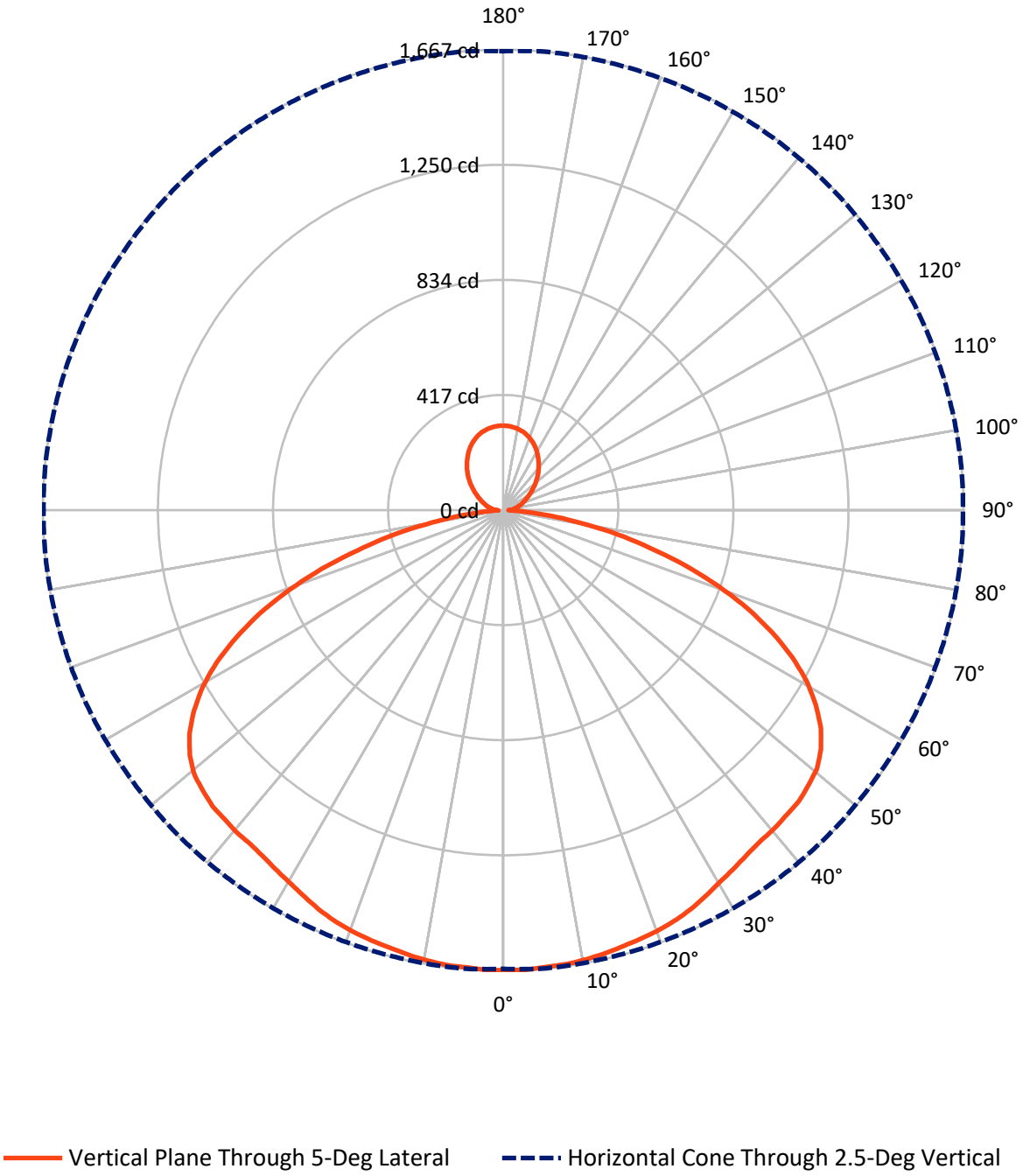
Based on 15 foot mounting height. Maximum calculated value = 7.4 fc
Type V - Short - N/A

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REPORT NUMBER: P821160
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Luminous Intensity Polar Plot



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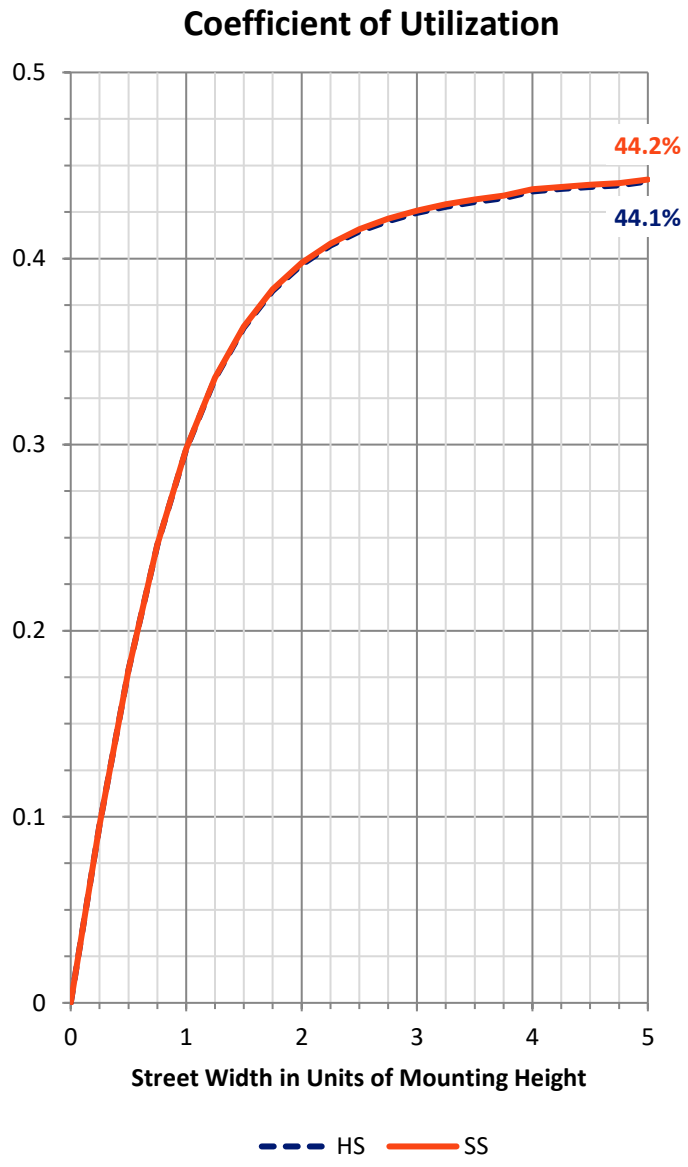
REPORT NUMBER: P821160
CATALOG NUMBER: TT-D4-830-24VDC-CQ-UPL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3332.0	415.9	3747.9
	% Fixture	44.5	5.5	50.0
Street Side	Lumens	3332.0	415.9	3747.9
	% Fixture	44.5	5.5	50.0
Total	Lumens	6664.0	831.7	7495.7
	% Fixture	88.9	11.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.5	2.1
10°-20°	464.1	6.2
20°-30°	738.0	9.8
30°-40°	970.9	13.0
40°-50°	1188.3	15.9
50°-60°	1287.1	17.2
60°-70°	1107.3	14.8
70°-80°	622.5	8.3
80°-90°	127.4	1.7
90°-100°	42.6	0.6
100°-110°	66.0	0.9
110°-120°	91.9	1.2
120°-130°	119.0	1.6
130°-140°	138.7	1.8
140°-150°	140.5	1.9
150°-160°	121.9	1.6
160°-170°	82.2	1.1
170°-180°	28.9	0.4
0°-90°	6664.0	88.9
0°-180°	7495.7	100.0



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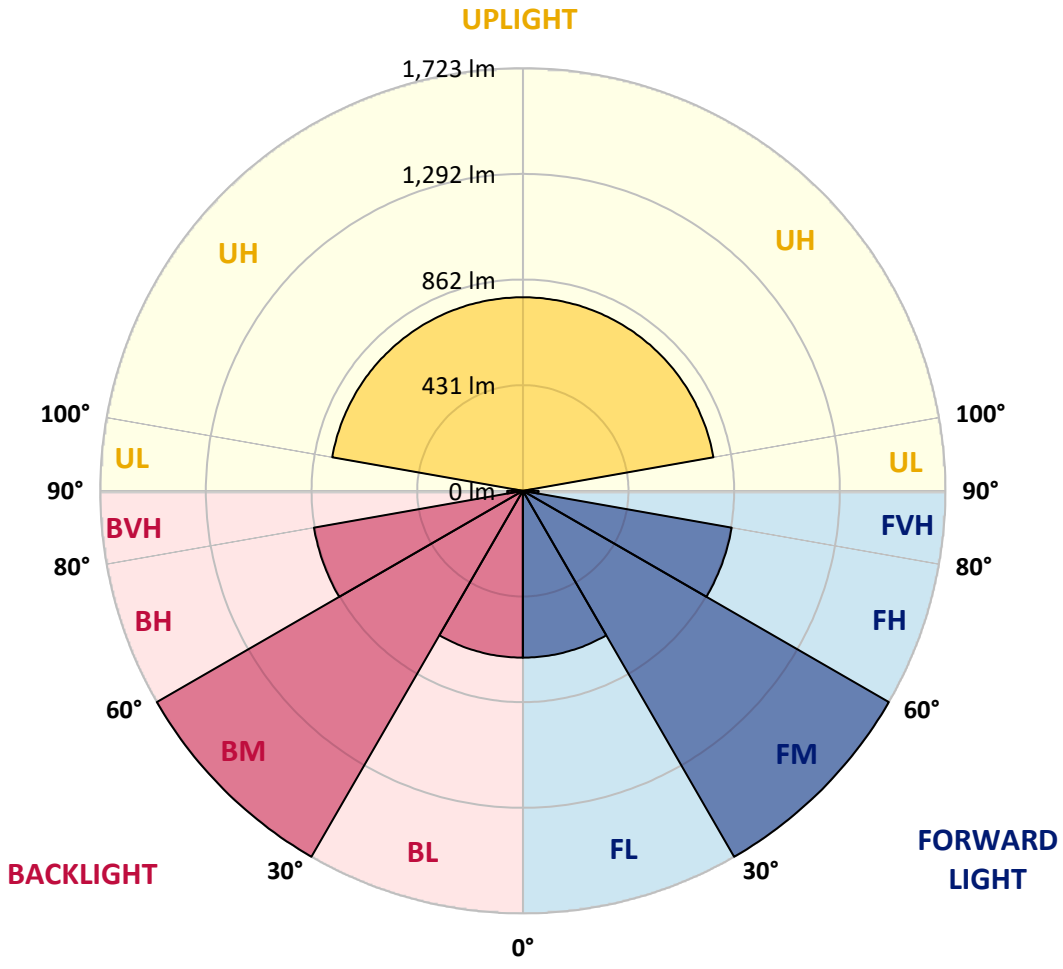
Scaled Data Report

REPORT NUMBER: P821160
CATALOG NUMBER: TT-D4-830-24VDC-CQ-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	680.3	9.1			
FM	(30°-60°)	1723.1	23.0			
FH	(60°-80°)	864.9	11.5			G1/1800
FVH	(80°-90°)	63.7	0.8			G1/100
BL	(0°-30°)	680.3	9.1	B2/1000		
BM	(30°-60°)	1723.1	23.0	B2/2500		
BH	(60°-80°)	864.9	11.5	B2/1000		G1/1800
BVH	(80°-90°)	63.7	0.8			G1/100
UL	(90°-100°)	42.6	0.6		U2/50	
UH	(100°-180°)	789.1	10.5		U4/1000	

BUG Rating: B2-U4-G1
Type V Short



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REPORT NUMBER: P821160
CATALOG NUMBER: TT-D4-830-24VDC-CQ-UPL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1666.1	*1666.1*	1666.1	1666.1	1666.1	1666.1	1666.1	1666.1	1666.1	1666.1	1666.1
2.5°	*1661.9*	*1667.2*	*1665.1*	*1665.1*	*1665.1*	*1665.1*	*1663.0*	*1665.1*	*1665.1*	*1666.1*	*1665.1*
5°	1663.0	*1661.9*	1661.9	1663.0	1663.0	1664.0	1661.9	1663.0	1664.0	1664.0	1665.1
7.5°	1659.8	*1660.8*	1658.7	1660.8	1658.7	1659.8	1659.8	1660.8	1659.8	1660.8	1663.0
10°	1653.4	*1654.5*	1653.4	1653.4	1653.4	1655.5	1651.3	1654.5	1653.4	1654.5	1653.4
12.5°	1641.8	*1647.1*	1644.9	1647.1	1647.1	1647.1	1643.9	1646.0	1647.1	1647.1	1647.1
15°	1636.5	*1637.5*	1634.3	1638.6	1639.6	1640.7	1636.5	1638.6	1638.6	1639.6	1640.7
17.5°	1624.8	*1630.1*	1629.0	1632.2	1631.2	1634.3	1633.3	1632.2	1631.2	1633.3	1631.2
20°	1616.3	*1621.6*	1620.6	1623.7	1624.8	1628.0	1624.8	1624.8	1621.6	1622.7	1625.9
22.5°	1607.8	*1610.0*	1610.0	1613.1	1613.1	1616.3	1613.1	1612.1	1612.1	1611.0	1614.2
25°	1594.1	*1595.1*	1594.1	1597.2	1599.4	1601.5	1600.4	1598.3	1597.2	1597.2	1596.2
27.5°	1571.8	*1576.0*	1578.2	1582.4	1583.5	1586.6	1582.4	1582.4	1580.3	1578.2	1579.2
30°	1554.8	*1557.0*	1557.0	1566.5	1566.5	1571.8	1566.5	1565.4	1564.4	1563.3	1561.2
32.5°	1539.0	*1542.1*	1545.3	1552.7	1558.0	1560.1	1557.0	1554.8	1549.5	1546.4	1545.3
35°	1526.2	*1527.3*	1533.7	1544.3	1550.6	1555.9	1551.7	1546.4	1539.0	1533.7	1537.9
37.5°	1516.7	*1517.8*	1527.3	1541.1	1552.7	1557.0	1550.6	1542.1	1530.5	1524.1	1522.0
40°	1508.2	*1514.6*	1525.2	1544.3	1557.0	1563.3	1558.0	1546.4	1529.4	1516.7	1515.6
42.5°	1504.0	*1507.2*	1523.1	1545.3	1563.3	1571.8	1564.4	1548.5	1527.3	1512.5	1511.4
45°	1493.4	*1502.9*	1517.8	1546.4	1566.5	1577.1	1566.5	1546.4	1520.9	1504.0	1500.8
47.5°	1484.9	*1488.1*	1511.4	1544.3	1568.6	1577.1	1566.5	1541.1	1509.3	1487.0	1484.9
50°	1464.8	*1472.2*	1495.5	1530.5	1559.1	1567.6	1554.8	1520.9	1484.9	1460.5	1456.3
52.5°	1434.0	*1440.4*	1467.9	1511.4	1539.0	1548.5	1529.4	1493.4	1451.0	1421.3	1421.3
55°	1386.3	*1395.9*	1424.5	1469.0	1504.0	1512.5	1490.2	1452.0	1404.3	1374.7	1373.6
57.5°	1329.1	*1335.5*	1366.2	1414.9	1448.9	1461.6	1439.3	1396.9	1349.2	1314.3	1311.1
60°	1254.9	*1263.4*	1296.2	1342.9	1377.8	1388.4	1369.4	1327.0	1278.2	1241.1	1241.1
62.5°	1165.9	*1175.4*	1208.3	1256.0	1292.0	1307.9	1281.4	1241.1	1190.2	1154.2	1151.0
65°	1062.0	*1070.5*	1100.2	1150.0	1187.1	1198.7	1178.6	1136.2	1087.4	1053.5	1050.3
67.5°	945.4	*957.1*	986.8	1029.1	1060.9	1075.8	1063.1	1024.9	974.0	939.1	935.9
70°	819.3	*827.8*	851.1	890.3	926.3	936.9	917.9	892.4	844.7	812.9	808.7
72.5°	684.7	*692.1*	711.2	748.3	773.7	787.5	776.9	744.0	705.9	679.4	683.6
75°	549.0	*548.0*	569.2	595.7	619.0	628.5	621.1	599.9	564.9	542.7	541.6
77.5°	413.4	*424.0*	431.4	453.6	472.7	480.1	469.5	452.6	426.1	408.1	411.2
80°	290.4	*284.0*	297.8	311.6	324.3	331.7	325.4	315.8	297.8	284.0	281.9
82.5°	178.1	*172.8*	179.1	191.8	200.3	202.4	203.5	191.8	184.4	173.8	175.9
85°	78.4	*79.5*	84.8	93.3	94.3	95.4	95.4	93.3	84.8	83.7	81.6
87.5°	19.1	*19.1*	20.1	23.3	23.3	24.4	24.4	21.2	20.1	18.0	19.1
90°	30.1	*29.1*	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
92.5°	34.8	*34.2*	34.2	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
95°	39.4	*39.4*	39.4	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
97.5°	44.6	*44.6*	44.6	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2
100°	49.8	*49.8*	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
102.5°	55.9	*55.9*	55.9	55.9	55.9	55.9	55.9	56.4	55.9	55.9	55.9
105°	62.0	*62.0*	62.0	62.0	62.0	62.0	62.0	62.9	62.0	62.0	62.0
107.5°	68.6	*68.6*	69.0	69.0	69.0	69.0	69.0	69.5	69.0	69.0	69.0
110°	75.1	*75.1*	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1

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Scaled Data Report

REPORT NUMBER: P821160
CATALOG NUMBER: TT-D4-830-24VDC-CQ-UPL

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	83.1	*83.1*	84.0	84.0	84.0	84.0	84.6	84.6	84.0	84.0	84.0
115°	91.1	*91.1*	92.0	92.0	92.0	92.0	93.0	93.0	92.0	92.0	92.0
117.5°	100.5	*100.5*	101.0	101.4	101.4	101.4	102.4	102.4	101.4	101.4	101.4
120°	109.9	*109.9*	109.9	110.8	110.8	110.8	111.8	111.8	110.8	110.8	110.8
122.5°	120.7	*120.7*	121.2	121.6	121.6	121.6	122.6	122.6	122.1	122.1	121.6
125°	131.5	*131.5*	132.4	132.4	132.4	132.4	133.4	133.4	133.4	133.4	132.4
127.5°	143.2	*143.2*	144.2	144.2	144.2	144.2	145.1	145.1	145.1	145.1	144.2
130°	155.0	*155.0*	155.9	155.9	155.9	155.9	156.8	156.8	156.8	156.8	155.9
132.5°	167.2	*167.2*	167.6	167.6	167.6	168.1	168.6	168.6	168.6	168.6	168.1
135°	179.4	*179.4*	179.4	179.4	179.4	180.3	180.3	180.3	180.3	180.3	180.3
137.5°	191.2	*190.6*	191.2	190.6	191.2	191.6	191.6	191.6	191.6	191.6	191.6
140°	202.9	*201.9*	202.9	201.9	202.9	202.9	202.9	202.9	202.9	202.9	202.9
142.5°	213.7	*213.2*	213.7	212.7	213.7	213.7	213.7	213.7	213.7	213.7	213.7
145°	224.5	*224.5*	224.5	223.5	224.5	224.5	224.5	224.5	224.5	224.5	224.5
147.5°	235.8	*235.3*	235.8	234.8	235.8	235.8	235.8	235.8	235.8	235.8	235.8
150°	247.0	*246.1*	247.0	246.1	247.0	247.0	247.0	247.0	247.0	247.0	247.0
152.5°	256.0	*255.5*	256.4	255.5	256.0	256.0	256.4	256.0	256.0	256.0	256.0
155°	264.9	*264.9*	265.8	264.9	264.9	264.9	265.8	264.9	264.9	264.9	264.9
157.5°	272.4	*272.4*	273.3	272.4	272.4	272.4	273.3	272.4	272.4	272.4	272.4
160°	279.9	*279.9*	280.8	279.9	279.9	279.9	280.8	279.9	279.9	279.9	279.9
162.5°	286.0	*286.0*	286.9	286.0	286.0	286.0	286.9	286.0	286.0	286.0	286.0
165°	292.1	*292.1*	293.0	292.1	292.1	292.1	293.0	292.1	292.1	292.1	292.1
167.5°	295.8	*295.8*	296.8	295.8	295.8	295.8	296.8	295.8	295.8	295.8	295.8
170°	299.6	*299.6*	300.5	299.6	299.6	299.6	300.5	299.6	299.6	299.6	299.6
172.5°	302.0	*302.0*	302.8	302.0	302.4	302.0	302.8	302.0	302.0	302.0	302.0
175°	304.3	*304.3*	305.2	304.3	305.2	304.3	305.2	304.3	304.3	304.3	304.3
177.5°	305.2	*305.2*	305.7	305.2	305.7	305.2	305.7	305.2	305.2	305.2	305.2
180°	306.2	*306.2*	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2

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Peachtree City, GA 30269

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-176-7

Test Date: 09/27/2024

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

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

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

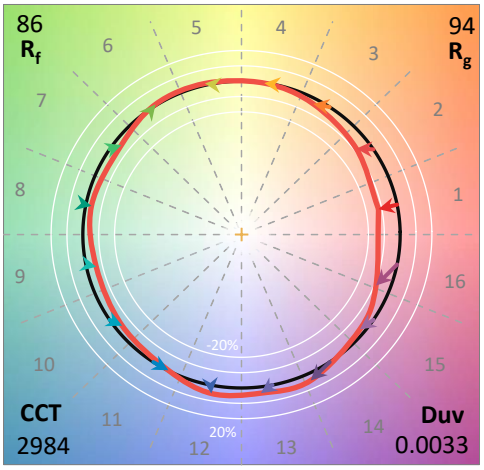
Test Information

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

Spectral Parameters

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

Rf:	85.8
Rg:	94.1



Test Conditions

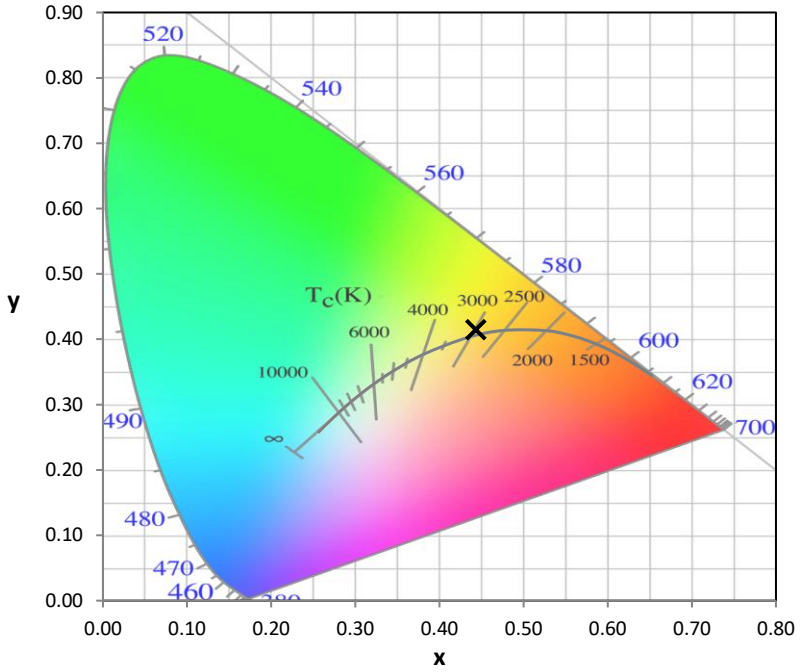
Stabilization Time:	29M
Operation Time:	1H 29M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-7

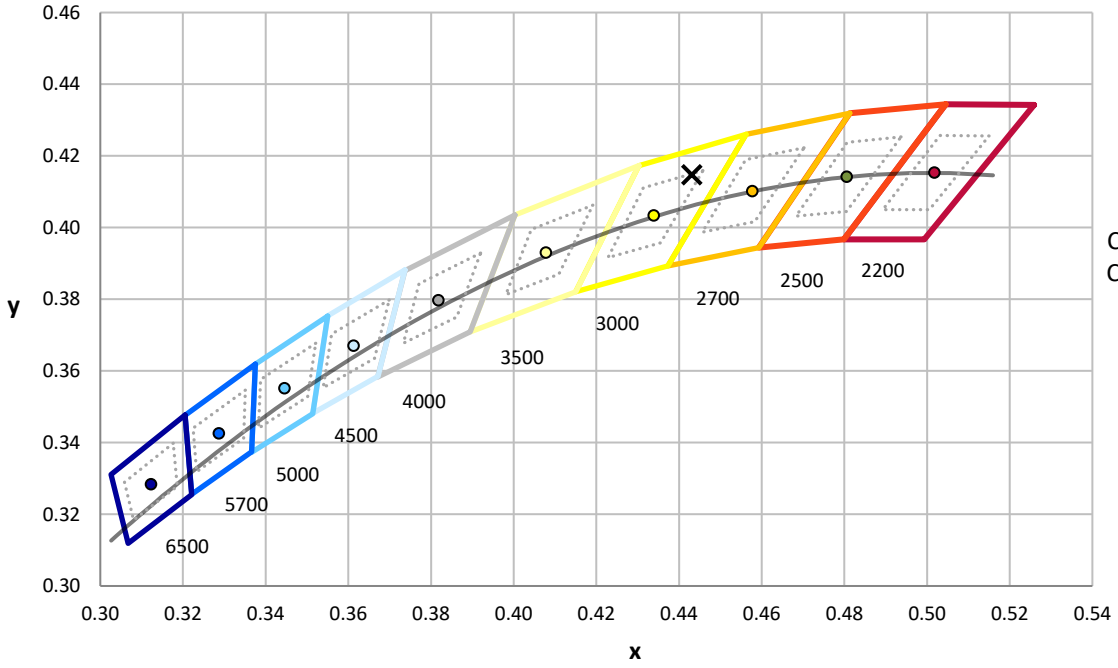
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-176-7

CIE 1931 Chromaticity Diagram



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

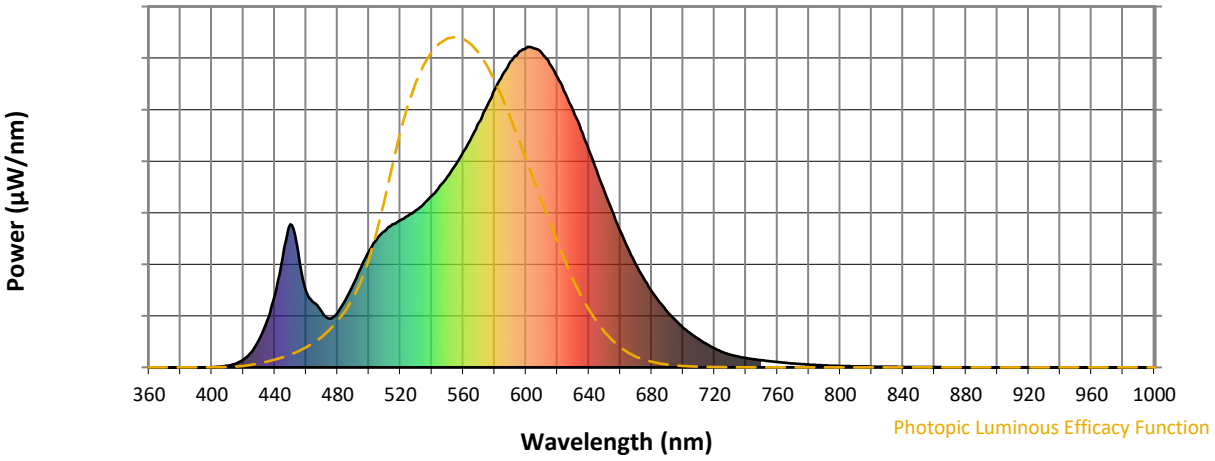


CCT = 2984K
CIE x = 0.4431
CIE y = 0.4147
Duv = 0.0033

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-7

Photopic Flux vs. Wavelength

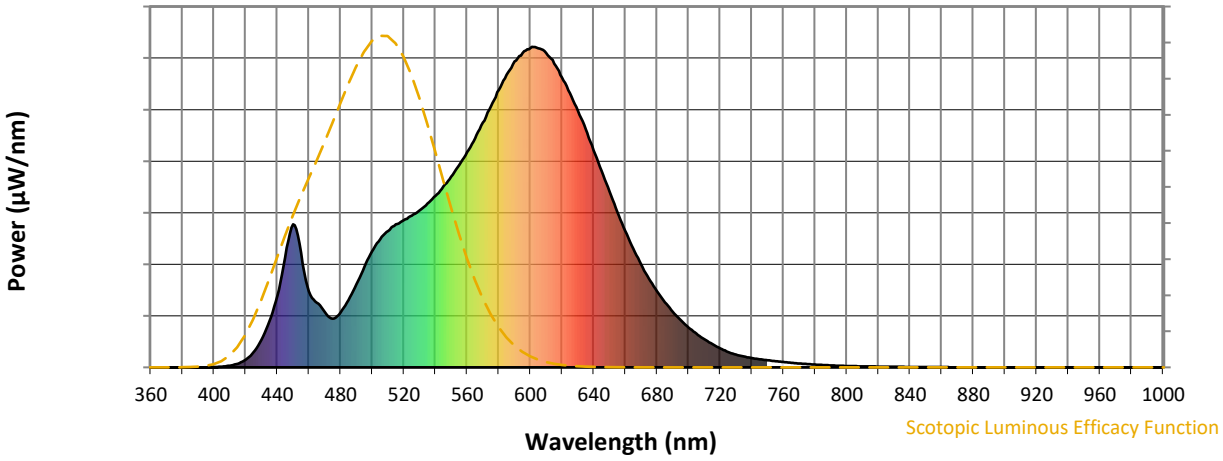


Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

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Scotopic Flux vs. Wavelength

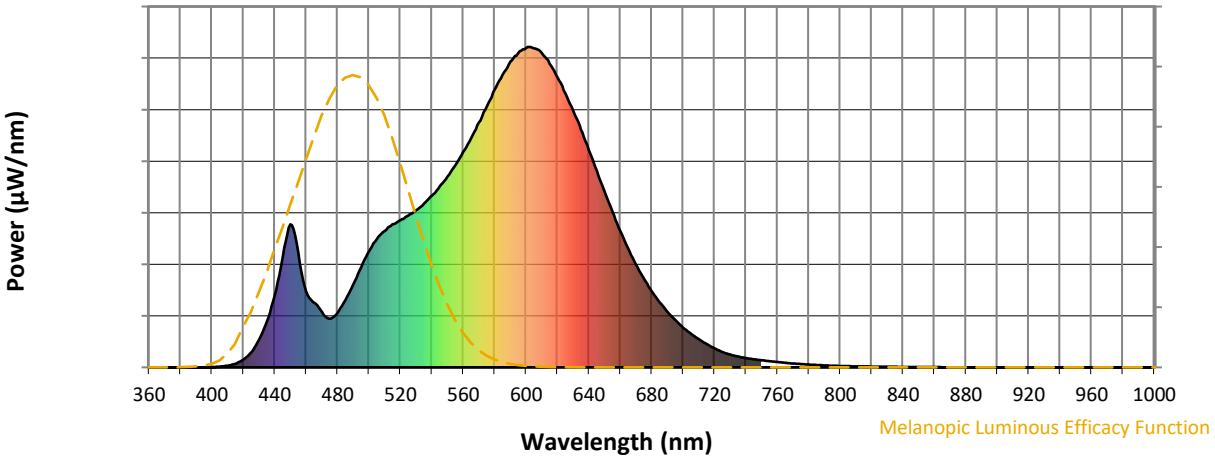


Scotopic Lumens: NR **S/P: 1.32**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



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

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

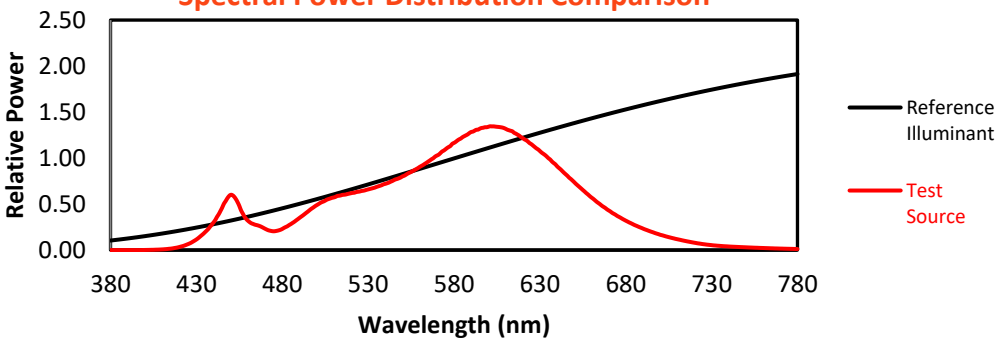
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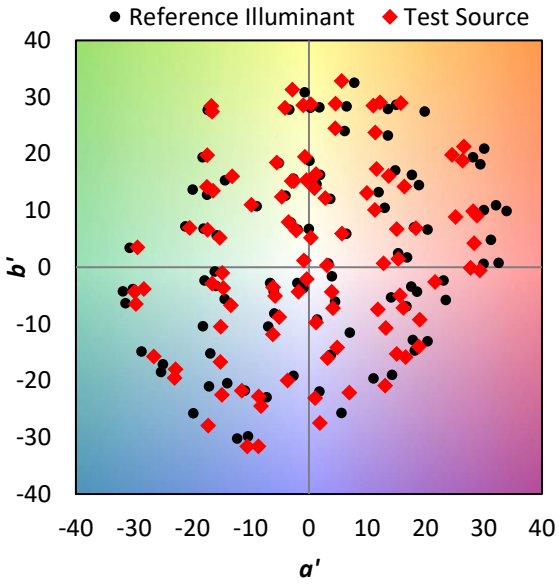
Summary

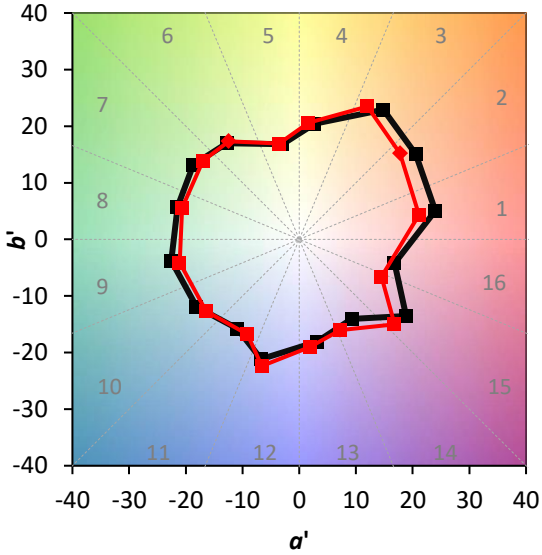
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R_g = 94.1
CIE R_a = 81.8
R_9 = -1.1

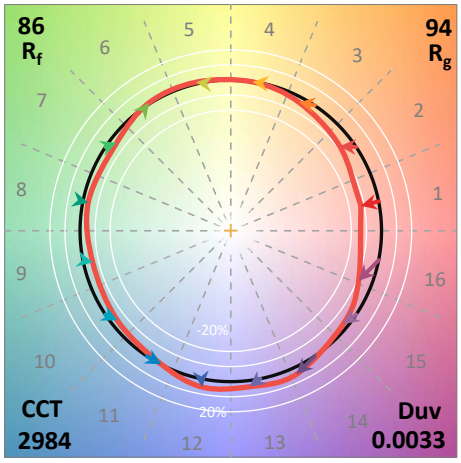
Spectral Power Distribution Comparison

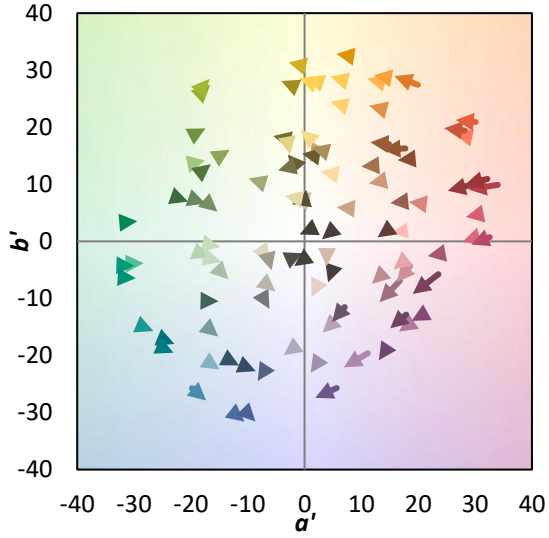


Color Vector Graphics







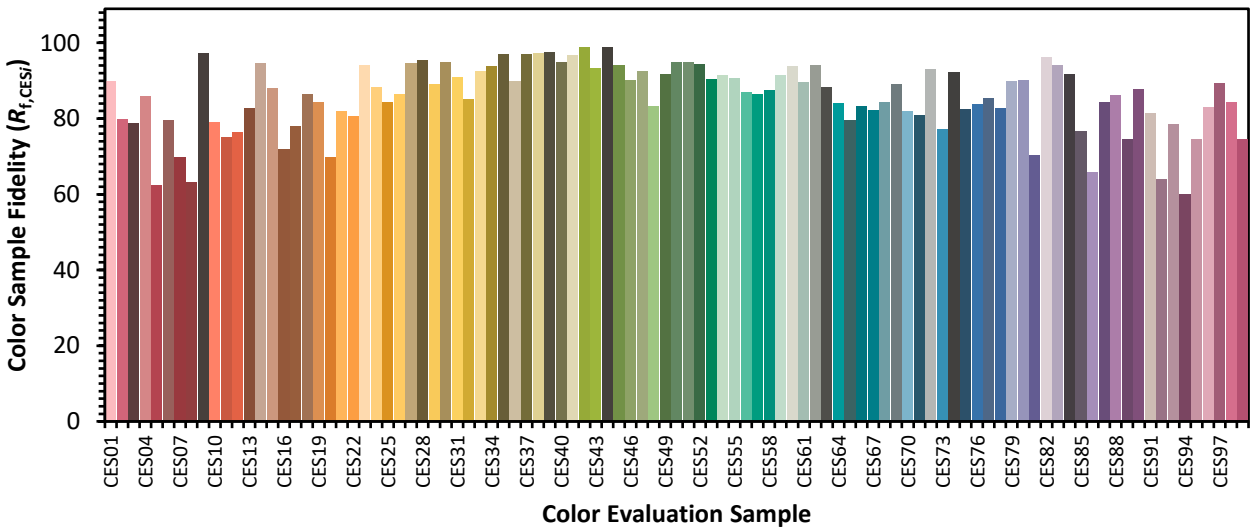


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Individual Sample Fidelity Index ($R_{f,i}$)

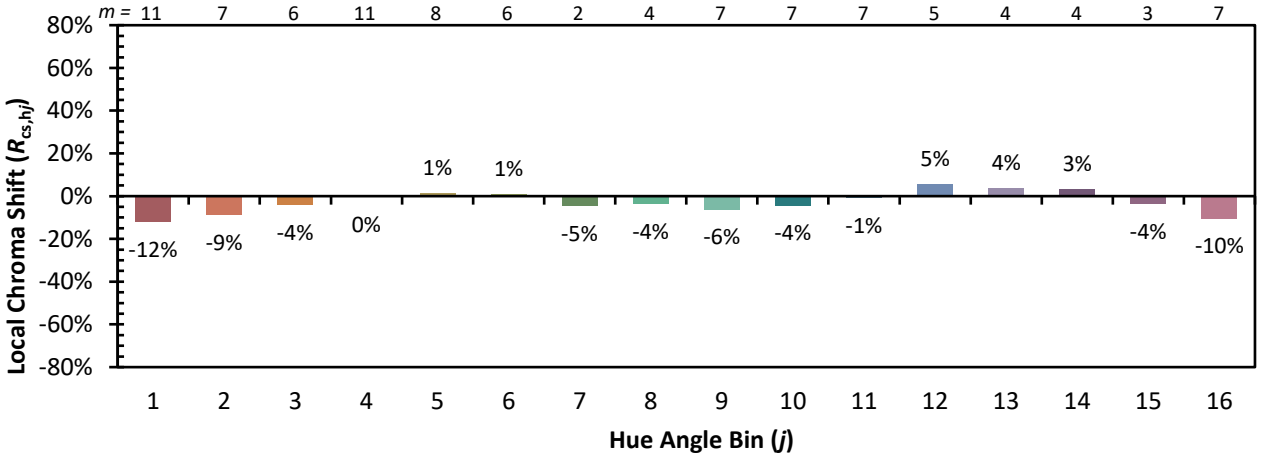
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CES02 = 63	CES27 = 95	CES52 = 94	CES77 = 86
CES03 = 31	CES28 = 95	CES53 = 90	CES78 = 83
CES04 = 70	CES29 = 89	CES54 = 91	CES79 = 90
CES05 = 50	CES30 = 95	CES55 = 91	CES80 = 90
CES06 = 51	CES31 = 91	CES56 = 87	CES81 = 70
CES07 = 42	CES32 = 85	CES57 = 86	CES82 = 96
CES08 = 41	CES33 = 93	CES58 = 87	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 97	CES60 = 94	CES85 = 77
CES11 = 59	CES36 = 90	CES61 = 90	CES86 = 66
CES12 = 65	CES37 = 97	CES62 = 94	CES87 = 84
CES13 = 43	CES38 = 97	CES63 = 88	CES88 = 86
CES14 = 74	CES39 = 98	CES64 = 84	CES89 = 75
CES15 = 72	CES40 = 95	CES65 = 80	CES90 = 88
CES16 = 47	CES41 = 97	CES66 = 83	CES91 = 81
CES17 = 50	CES42 = 99	CES67 = 82	CES92 = 64
CES18 = 56	CES43 = 93	CES68 = 84	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 89	CES94 = 60
CES20 = 67	CES45 = 94	CES70 = 82	CES95 = 74
CES21 = 87	CES46 = 90	CES71 = 81	CES96 = 83
CES22 = 79	CES47 = 93	CES72 = 93	CES97 = 89
CES23 = 92	CES48 = 83	CES73 = 77	CES98 = 84
CES24 = 91	CES49 = 92	CES74 = 92	CES99 = 75
CES25 = 72	CES50 = 95	CES75 = 83	

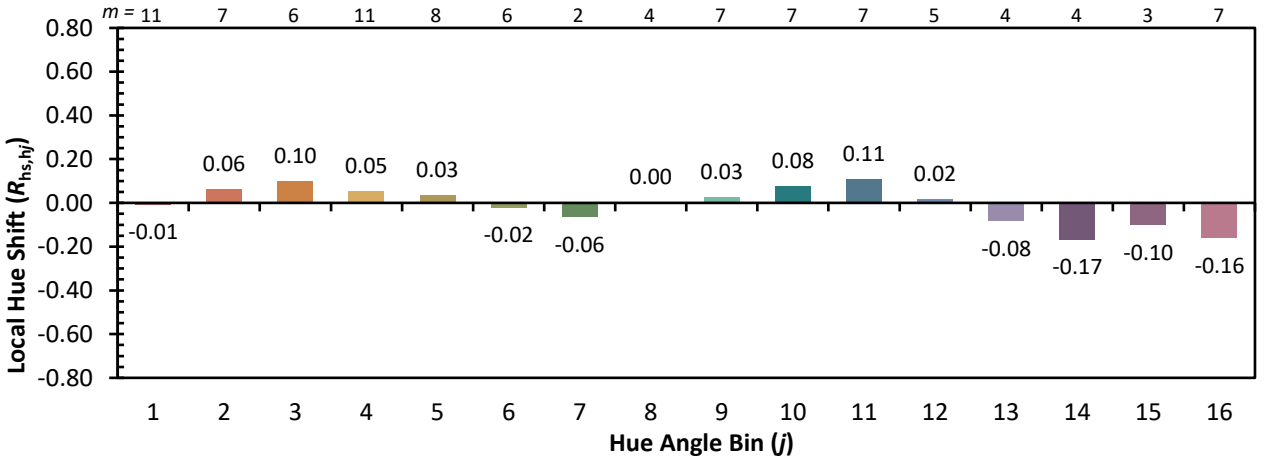


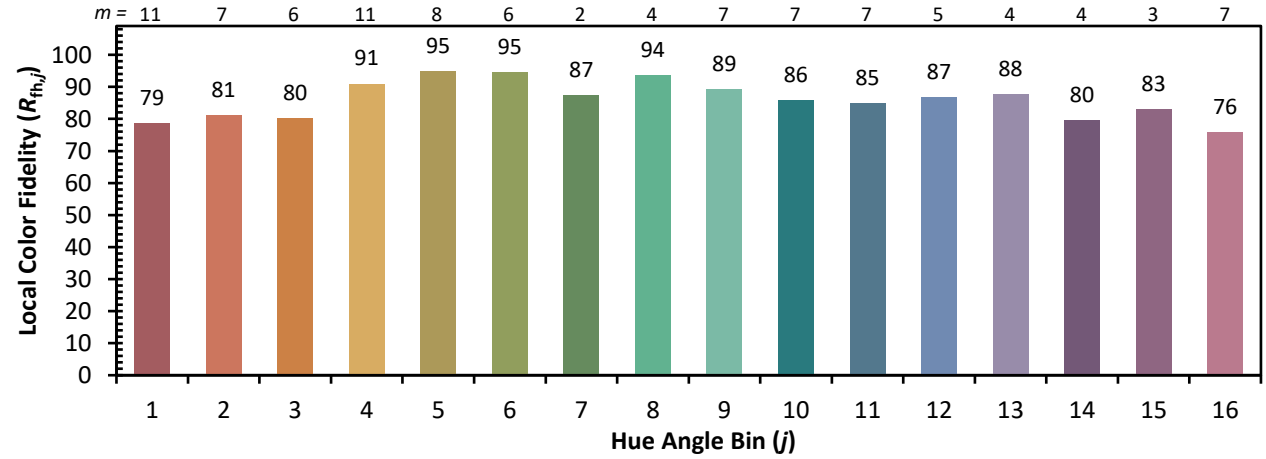
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Color Rendition by Hue-Angle Bin



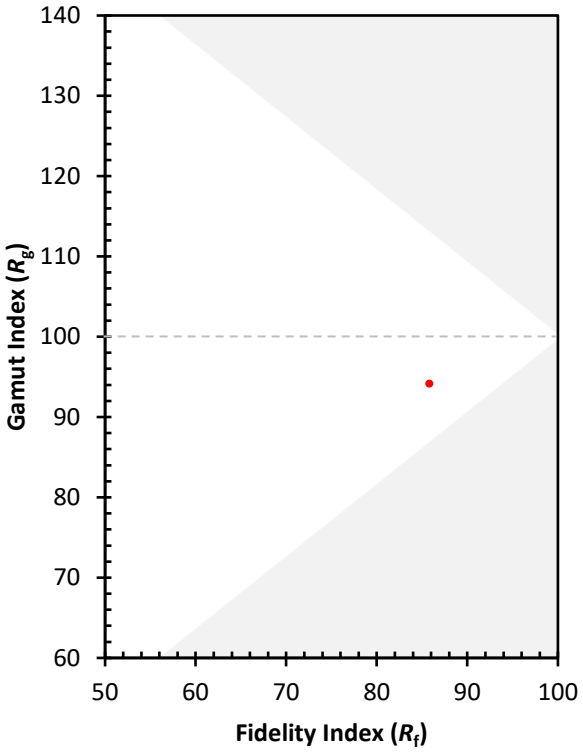


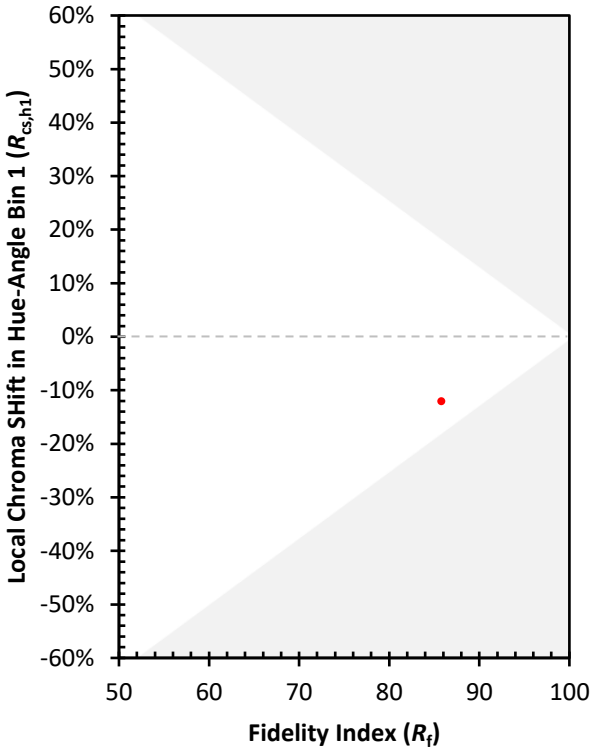


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Measure Comparisons





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