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: P823287

Luminaire Tested: **TTN-D0-830-U-DL**

Issue Date: 4/16/2024

Report Generated By 670246001

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:	P823287
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2312-254-11)
Test Lab:	INNOVATION CENTER
Issue Date:	4/16/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TTN-D0-830-U-DL
Description:	TOPTIER NANO LED PARKING GARAGE LUMINAIRE
	3000K, 80 CRI LEDS AND DRIVE LANE DISTRIBUTION
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	1032 lumens
Efficiency:	N/A
Efficacy:	96.4 lumens/watt
Luminous Opening:	Circular (Dia: 0.71' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B0 - U0 - G1

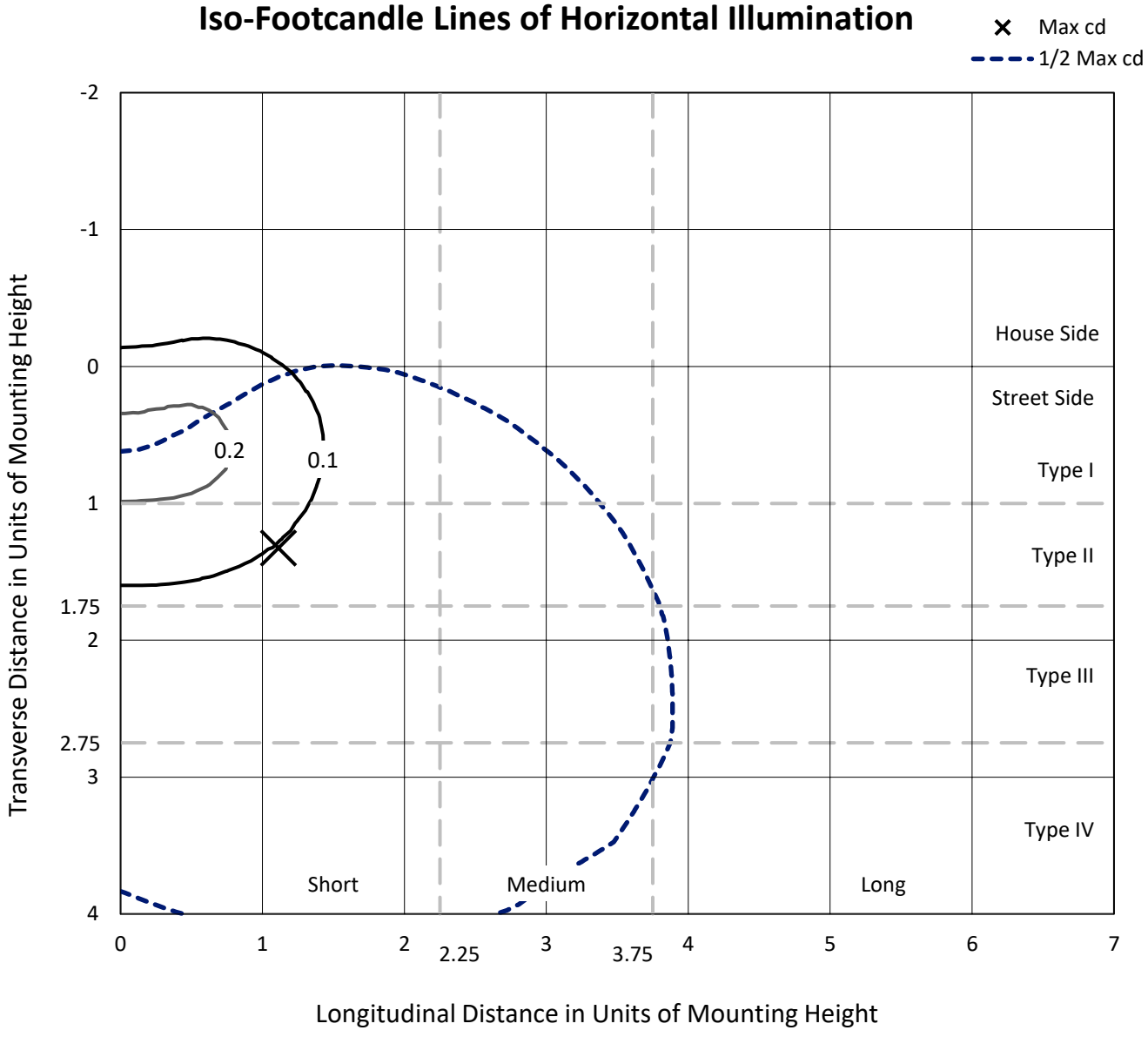
Input Watts (W):	10.7
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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

Scaled Data Report

REPORT NUMBER: P823287
CATALOG NUMBER: TTN-D0-830-U-DL

Iso-Footcandle Lines of Horizontal Illumination



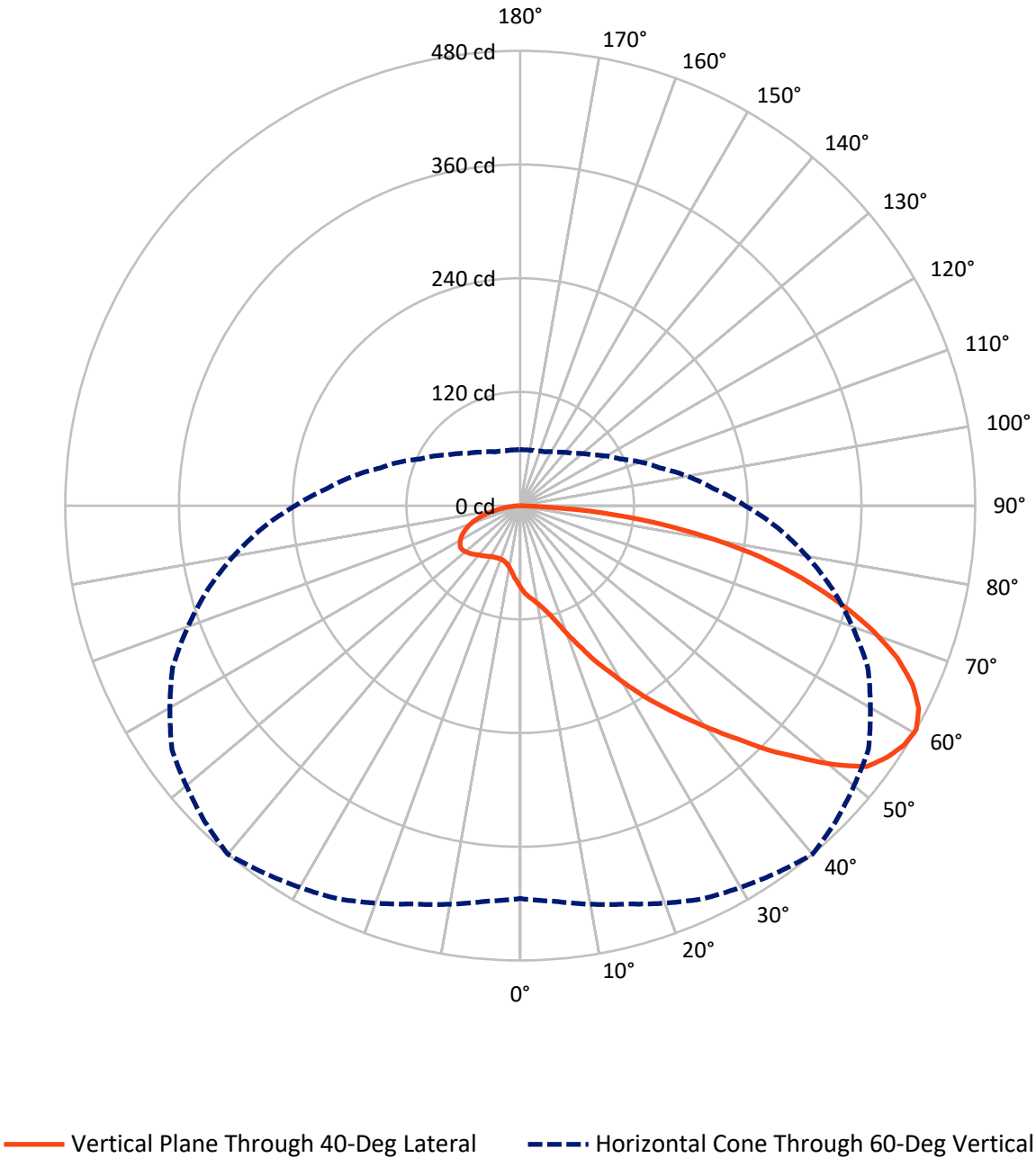
Based on 25 foot mounting height. Maximum calculated value = 0.2 fc
Type IV - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P823287
CATALOG NUMBER: TTN-D0-830-U-DL

Luminous Intensity Polar Plot



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

Scaled Data Report

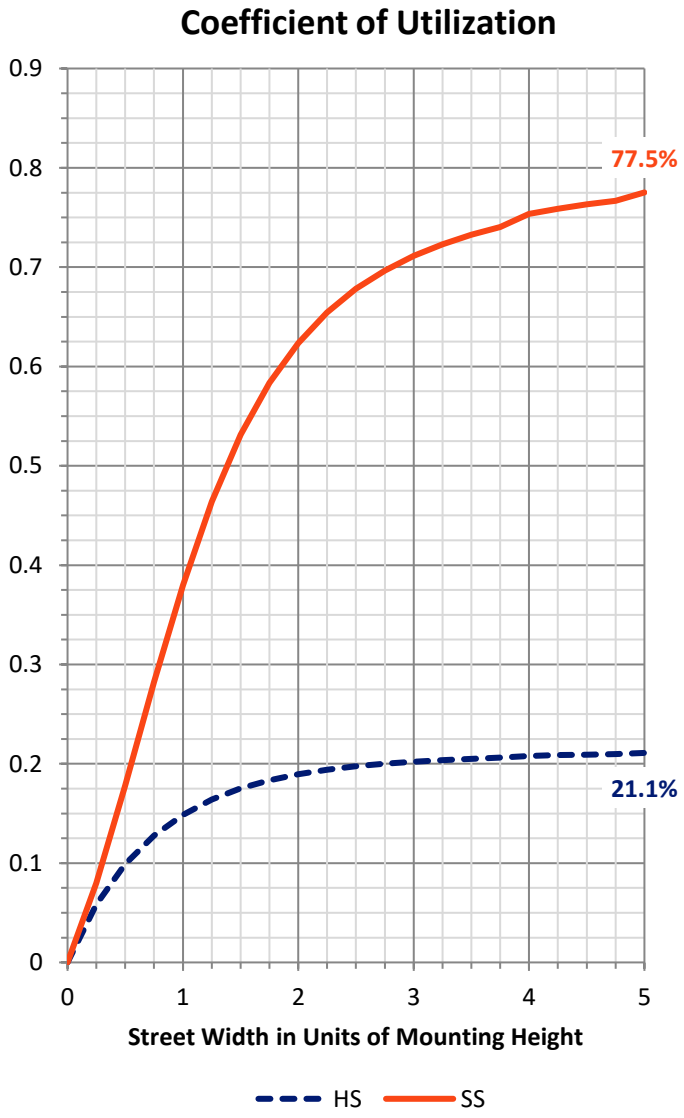
REPORT NUMBER: P823287
CATALOG NUMBER: TTN-D0-830-U-DL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	219.8	0.0	219.8
	% Fixture	21.3	0.0	21.3
Street Side	Lumens	812.2	0.0	812.2
	% Fixture	78.7	0.0	78.7
Total	Lumens	1032.0	0.0	1032.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.2	0.8
10°-20°	26.2	2.5
20°-30°	55.3	5.4
30°-40°	101.0	9.8
40°-50°	164.1	15.9
50°-60°	228.1	22.1
60°-70°	236.5	22.9
70°-80°	169.5	16.4
80°-90°	43.2	4.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	1032.0	100.0
0°-180°	1032.0	100.0



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

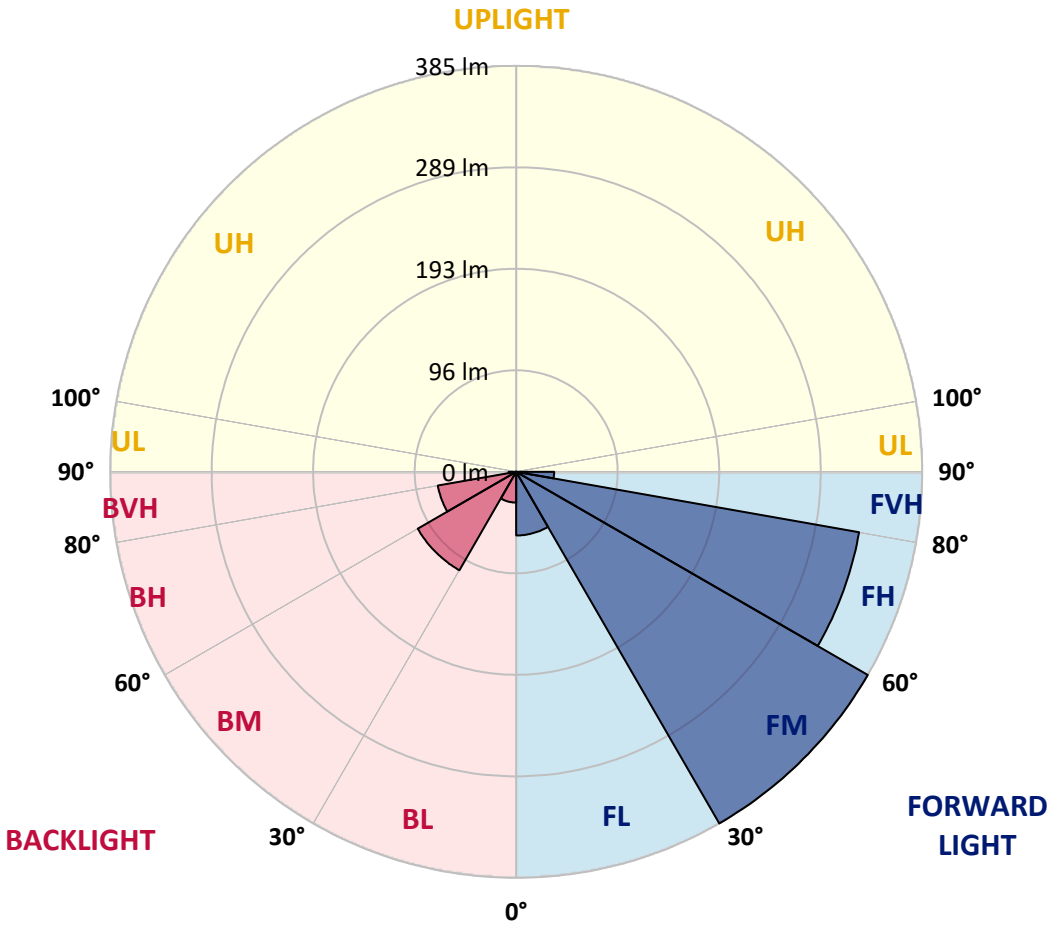
Scaled Data Report

REPORT NUMBER: P823287
CATALOG NUMBER: TTN-D0-830-U-DL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	60.4	5.9			
FM	(30°-60°)	385.3	37.3			
FH	(60°-80°)	330.5	32.0			G0/660
FVH	(80°-90°)	36.0	3.5			G1/100
BL	(0°-30°)	29.2	2.8	B0/110		
BM	(30°-60°)	107.9	10.5	B0/220		
BH	(60°-80°)	75.4	7.3	B0/110		G0/110
BVH	(80°-90°)	7.2	0.7			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1
Type IV Short



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

Scaled Data Report

REPORT NUMBER: P823287
CATALOG NUMBER: TTN-D0-830-U-DL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9
2.5°	93.2	93.2	93.2	93.2	92.3	92.3	91.4	90.5	89.6	88.7	86.9
5°	101.3	101.3	100.4	99.5	97.7	96.8	95.9	94.1	92.3	90.5	87.8
7.5°	104.8	104.8	104.8	103.9	101.3	100.4	98.6	95.9	93.2	90.5	86.9
10°	111.1	111.1	110.2	109.3	106.6	105.7	103.9	100.4	95.9	91.4	86.9
12.5°	119.2	118.3	117.4	116.5	113.8	112.0	109.3	105.7	100.4	95.0	89.6
15°	129.0	127.2	127.2	125.4	122.8	120.1	118.3	112.9	107.5	100.4	93.2
17.5°	139.8	138.9	138.0	136.2	133.5	131.7	129.0	122.8	115.6	106.6	98.6
20°	153.2	151.4	152.3	149.6	147.0	146.1	141.6	134.4	125.4	115.6	105.7
22.5°	169.4	167.6	167.6	164.9	163.1	161.3	156.8	148.7	137.1	126.3	113.8
25°	187.3	185.5	185.5	183.7	181.9	180.1	174.7	165.8	152.3	138.9	124.6
27.5°	207.0	205.2	205.2	204.3	199.8	197.1	192.7	182.8	169.4	152.3	135.3
30°	227.6	225.8	227.6	225.8	223.1	217.7	212.4	201.6	186.4	167.6	147.0
32.5°	243.7	243.7	244.6	246.4	244.6	240.1	233.9	224.9	204.3	181.0	157.7
35°	262.5	262.5	264.3	267.0	266.1	261.6	255.4	245.5	224.0	196.2	169.4
37.5°	283.2	283.2	284.9	289.4	287.6	284.9	280.5	267.9	243.7	211.5	181.9
40°	305.6	304.7	306.5	312.7	313.6	310.0	304.7	292.1	264.3	231.2	195.3
42.5°	328.0	327.1	330.6	336.9	337.8	336.9	331.5	317.2	285.8	250.9	208.8
45°	350.4	350.4	355.7	365.6	370.1	368.3	363.8	345.9	312.7	271.5	226.7
47.5°	373.7	373.7	380.8	393.4	398.7	397.8	396.1	374.6	338.7	293.0	241.9
50°	391.6	391.6	403.2	417.6	426.5	430.1	421.1	401.4	361.1	311.8	254.5
52.5°	409.5	409.5	421.1	443.5	452.5	457.9	446.2	425.6	386.2	328.9	266.1
55°	418.5	420.2	436.4	457.9	472.2	469.5	474.0	446.2	402.3	341.4	273.3
57.5°	419.4	422.0	440.0	462.4	478.5	477.6	478.5	453.4	408.6	344.1	274.2
60°	414.9	419.4	435.5	457.9	473.1	480.3	471.3	448.9	405.0	341.4	273.3
62.5°	404.1	413.1	430.1	447.1	469.5	472.2	465.1	446.2	395.2	338.7	268.8
65°	379.9	389.8	414.0	433.7	451.6	455.2	447.1	431.0	385.3	326.2	254.5
67.5°	355.7	362.0	382.6	413.1	425.6	429.2	426.5	407.7	368.3	301.1	237.5
70°	328.0	336.0	352.1	383.5	396.1	395.2	403.2	381.7	342.3	279.6	219.5
72.5°	290.3	302.0	318.1	344.1	359.3	353.9	366.5	348.6	308.2	252.7	195.3
75°	246.4	256.3	276.9	297.5	314.5	308.2	318.1	305.6	268.8	220.4	167.6
77.5°	197.1	208.8	227.6	246.4	258.1	258.1	262.5	251.8	223.1	181.0	137.1
80°	146.1	156.8	173.8	187.3	198.0	198.9	203.4	198.0	172.0	140.7	104.8
82.5°	96.8	102.2	117.4	128.1	138.9	138.0	145.2	141.6	120.1	96.8	69.9
85°	41.2	44.8	57.3	66.3	76.2	72.6	82.4	81.5	64.5	46.6	31.4
87.5°	1.8	2.7	2.7	1.8	2.7	0.9	2.7	3.6	2.7	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report

REPORT NUMBER: P823287
CATALOG NUMBER: TTN-D0-830-U-DL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9
2.5°	86.9	86.0	84.2	83.3	82.4	80.6	80.6	79.7	79.7	79.7	78.9
5°	86.9	85.1	83.3	80.6	78.9	77.1	75.3	73.5	72.6	72.6	71.7
7.5°	85.1	83.3	80.6	78.0	75.3	71.7	69.9	66.3	65.4	64.5	64.5
10°	85.1	83.3	78.9	75.3	71.7	68.1	65.4	61.8	59.1	58.2	58.2
12.5°	86.0	83.3	78.9	74.4	69.9	65.4	61.8	58.2	55.6	53.8	53.8
15°	89.6	86.0	80.6	74.4	69.0	63.6	60.0	55.6	52.9	51.1	51.1
17.5°	94.1	90.5	82.4	75.3	69.0	62.7	58.2	53.8	51.1	49.3	48.4
20°	100.4	95.0	86.0	76.2	69.0	62.7	57.3	52.9	49.3	47.5	47.5
22.5°	107.5	101.3	89.6	78.0	69.9	62.7	57.3	52.0	48.4	46.6	46.6
25°	116.5	108.4	95.0	81.5	71.7	63.6	57.3	52.0	48.4	46.6	46.6
27.5°	126.3	117.4	100.4	85.1	73.5	64.5	57.3	52.0	48.4	46.6	46.6
30°	135.3	125.4	105.7	88.7	76.2	65.4	58.2	52.9	49.3	47.5	46.6
32.5°	145.2	132.6	111.1	92.3	78.0	67.2	59.1	53.8	49.3	47.5	47.5
35°	155.0	141.6	116.5	96.8	80.6	69.0	60.0	54.7	50.2	48.4	48.4
37.5°	165.8	151.4	122.8	100.4	83.3	70.8	61.8	55.6	51.1	49.3	49.3
40°	178.3	161.3	129.0	104.8	86.0	72.6	62.7	57.3	52.9	51.1	51.1
42.5°	190.0	170.3	135.3	108.4	88.7	74.4	64.5	58.2	54.7	52.9	52.9
45°	201.6	181.0	141.6	112.9	91.4	77.1	66.3	60.9	56.5	54.7	54.7
47.5°	215.1	190.9	148.7	116.5	94.1	78.9	68.1	62.7	58.2	57.3	56.5
50°	225.8	198.0	153.2	120.1	95.9	80.6	69.9	63.6	60.0	58.2	58.2
52.5°	235.7	205.2	156.8	121.9	96.8	81.5	71.7	65.4	61.8	60.0	60.0
55°	241.0	207.9	159.5	121.9	97.7	82.4	71.7	65.4	61.8	60.9	60.0
57.5°	241.0	207.9	157.7	120.1	95.9	80.6	70.8	64.5	61.8	60.0	60.0
60°	*237.5*	*205.2*	*153.2*	*116.5*	*93.2*	*78.0*	*69.0*	*62.7*	*60.0*	*59.1*	*59.1*
62.5°	232.1	200.7	149.6	112.0	89.6	74.4	66.3	60.0	58.2	58.2	57.3
65°	217.7	187.3	141.6	105.7	84.2	69.9	62.7	57.3	55.6	54.7	53.8
67.5°	202.5	174.7	129.0	98.6	77.1	65.4	58.2	53.8	51.1	51.1	50.2
70°	187.3	161.3	117.4	88.7	69.0	60.0	52.9	48.4	46.6	46.6	46.6
72.5°	166.7	144.3	103.9	78.0	60.9	52.9	47.5	43.0	42.1	42.1	41.2
75°	142.5	122.8	87.8	66.3	51.1	44.8	40.3	35.8	35.8	35.8	35.8
77.5°	116.5	99.5	69.9	52.9	40.3	35.8	33.2	29.6	29.6	29.6	29.6
80°	87.8	73.5	51.1	38.5	29.6	26.0	24.2	22.4	23.3	23.3	22.4
82.5°	57.3	48.4	32.3	24.2	18.8	17.0	17.0	15.2	16.1	16.1	16.1
85°	25.1	21.5	13.4	10.8	9.0	9.0	9.0	8.1	9.0	9.0	9.0
87.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.0	0.9	1.8	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

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

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2411-284-4

Test Date: 11/22/2024

Luminaire Tested: TTN-D0-830-U-WQ

Data in this report applies to TT and TTN families of products

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

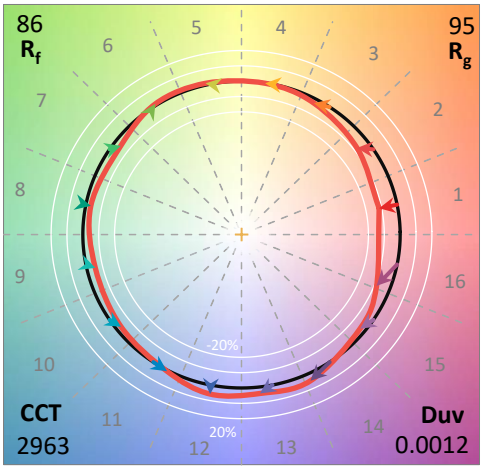
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2411-284-4
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	11/22/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**TTN-D0-830-U-WQ**
Description:	TOPTIER NANO LED PARKING GARAGE LUMINAIRE. 3000K, 80 CRI LEDS AND WIDE DISTRIBUTION

Spectral Parameters

CCT (K):	2963
CIE u':	0.2515
CIE v':	0.5238
Duv:	0.0012
CIE x:	0.4414
CIE y:	0.4086
CIE z:	0.1501
Peak Wavelength (nm):	603
Dominant Wavelength (nm):	582
Purity:	55.12798
Rf:	86.1
Rg:	94.9

CRI (Ra):	82.9
R1:	81.4
R2:	91.9
R3:	95.2
R4:	81.6
R5:	82.3
R6:	91.4
R7:	82.0
R8:	57.2
R9:	3.9
R10:	82.5
R11:	82.3
R12:	76.5
R13:	83.9
R14:	97.8
R15:	72.6



Test Conditions

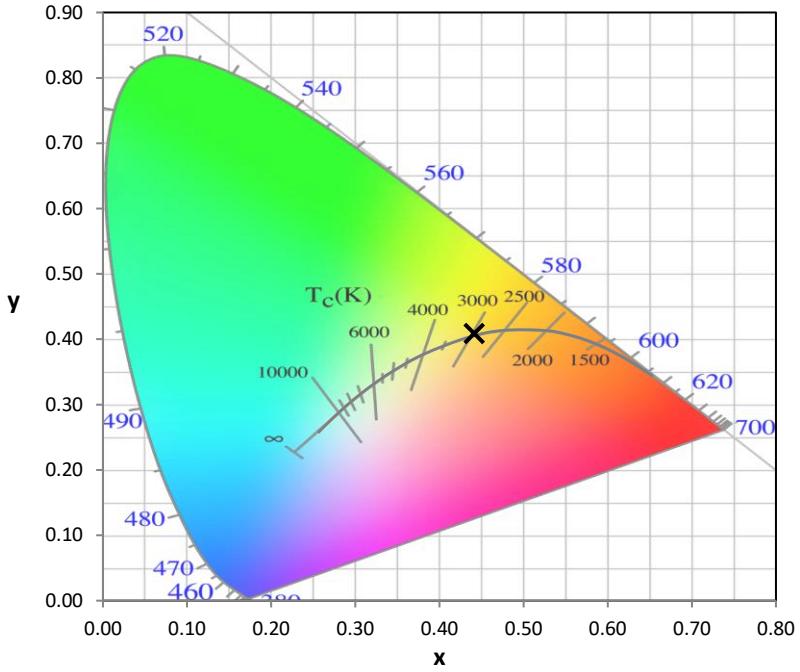
Stabilization Time:	37M
Operation Time:	1H 37M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2411-284-4

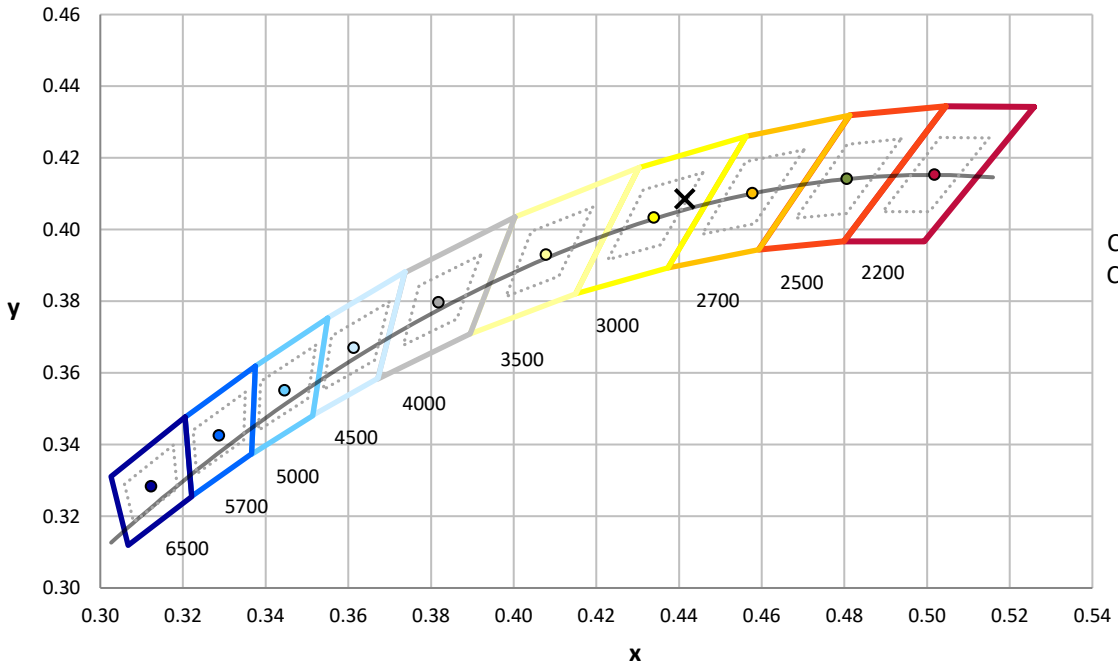
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085	10/22/2024	10/22/2025
Room Thermometer	IN0046	10/22/2024	10/22/2025

REPORT NUMBER: SP1-2411-284-4

CIE 1931 Chromaticity Diagram



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

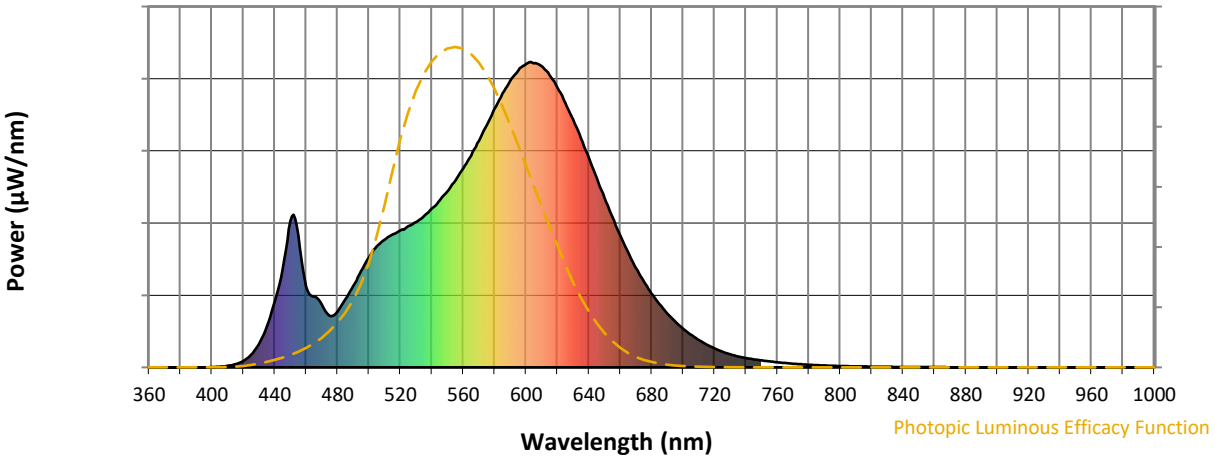


CCT = 2963K
CIE x = 0.4414
CIE y = 0.4086
Duv = 0.0012

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2411-284-4

Photopic Flux vs. Wavelength

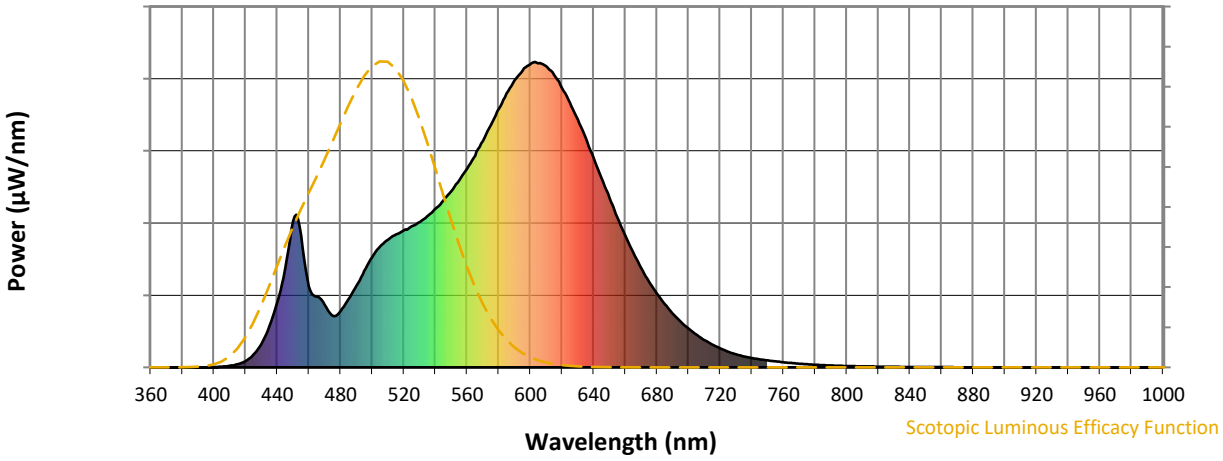


Photopic Lumens: NR

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	267	NR	620	915	NR	750	23	NR	880	0	NR
365	0	NR	495	315	NR	625	866	NR	755	20	NR	885	0	NR
370	0	NR	500	360	NR	630	811	NR	760	17	NR	890	0	NR
375	0	NR	505	396	NR	635	750	NR	765	14	NR	895	0	NR
380	0	NR	510	418	NR	640	686	NR	770	12	NR	900	0	NR
385	0	NR	515	435	NR	645	619	NR	775	10	NR	905	0	NR
390	0	NR	520	448	NR	650	554	NR	780	9	NR	910	0	NR
395	0	NR	525	462	NR	655	491	NR	785	7	NR	915	0	NR
400	1	NR	530	476	NR	660	431	NR	790	6	NR	920	0	NR
405	2	NR	535	495	NR	665	376	NR	795	5	NR	925	0	NR
410	5	NR	540	520	NR	670	325	NR	800	4	NR	930	0	NR
415	10	NR	545	547	NR	675	280	NR	805	4	NR	935	0	NR
420	21	NR	550	576	NR	680	241	NR	810	3	NR	940	0	NR
425	42	NR	555	612	NR	685	207	NR	815	3	NR	945	0	NR
430	77	NR	560	651	NR	690	176	NR	820	2	NR	950	0	NR
435	135	NR	565	693	NR	695	149	NR	825	2	NR	955	0	NR
440	215	NR	570	741	NR	700	127	NR	830	2	NR	960	0	NR
445	321	NR	575	793	NR	705	107	NR	835	2	NR	965	0	NR
450	479	NR	580	847	NR	710	89	NR	840	1	NR	970	0	NR
455	432	NR	585	897	NR	715	75	NR	845	1	NR	975	0	NR
460	265	NR	590	940	NR	720	62	NR	850	1	NR	980	0	NR
465	231	NR	595	971	NR	725	51	NR	855	1	NR	985	0	NR
470	204	NR	600	993	NR	730	43	NR	860	1	NR	990	0	NR
475	168	NR	605	996	NR	735	36	NR	865	1	NR	995	0	NR
480	183	NR	610	986	NR	740	31	NR	870	1	NR	1000	0	NR
485	223	NR	615	957	NR	745	26	NR	875	0	NR			

REPORT NUMBER: SP1-2411-284-4

Scotopic Flux vs. Wavelength

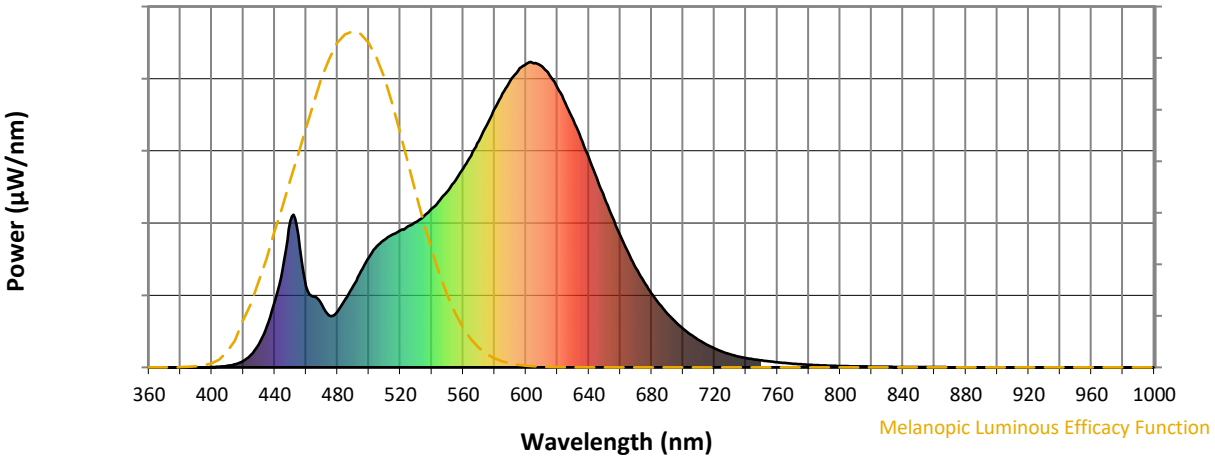


Scotopic Lumens: NR **S/P: 1.34**

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	267	NR	620	915	NR	750	23	NR	880	0	NR
365	0	NR	495	315	NR	625	866	NR	755	20	NR	885	0	NR
370	0	NR	500	360	NR	630	811	NR	760	17	NR	890	0	NR
375	0	NR	505	396	NR	635	750	NR	765	14	NR	895	0	NR
380	0	NR	510	418	NR	640	686	NR	770	12	NR	900	0	NR
385	0	NR	515	435	NR	645	619	NR	775	10	NR	905	0	NR
390	0	NR	520	448	NR	650	554	NR	780	9	NR	910	0	NR
395	0	NR	525	462	NR	655	491	NR	785	7	NR	915	0	NR
400	1	NR	530	476	NR	660	431	NR	790	6	NR	920	0	NR
405	2	NR	535	495	NR	665	376	NR	795	5	NR	925	0	NR
410	5	NR	540	520	NR	670	325	NR	800	4	NR	930	0	NR
415	10	NR	545	547	NR	675	280	NR	805	4	NR	935	0	NR
420	21	NR	550	576	NR	680	241	NR	810	3	NR	940	0	NR
425	42	NR	555	612	NR	685	207	NR	815	3	NR	945	0	NR
430	77	NR	560	651	NR	690	176	NR	820	2	NR	950	0	NR
435	135	NR	565	693	NR	695	149	NR	825	2	NR	955	0	NR
440	215	NR	570	741	NR	700	127	NR	830	2	NR	960	0	NR
445	321	NR	575	793	NR	705	107	NR	835	2	NR	965	0	NR
450	479	NR	580	847	NR	710	89	NR	840	1	NR	970	0	NR
455	432	NR	585	897	NR	715	75	NR	845	1	NR	975	0	NR
460	265	NR	590	940	NR	720	62	NR	850	1	NR	980	0	NR
465	231	NR	595	971	NR	725	51	NR	855	1	NR	985	0	NR
470	204	NR	600	993	NR	730	43	NR	860	1	NR	990	0	NR
475	168	NR	605	996	NR	735	36	NR	865	1	NR	995	0	NR
480	183	NR	610	986	NR	740	31	NR	870	1	NR	1000	0	NR
485	223	NR	615	957	NR	745	26	NR	875	0	NR			

REPORT NUMBER: SP1-2411-284-4

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.58**

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	267	NR	620	915	NR	750	23	NR	880	0	NR
365	0	NR	495	315	NR	625	866	NR	755	20	NR	885	0	NR
370	0	NR	500	360	NR	630	811	NR	760	17	NR	890	0	NR
375	0	NR	505	396	NR	635	750	NR	765	14	NR	895	0	NR
380	0	NR	510	418	NR	640	686	NR	770	12	NR	900	0	NR
385	0	NR	515	435	NR	645	619	NR	775	10	NR	905	0	NR
390	0	NR	520	448	NR	650	554	NR	780	9	NR	910	0	NR
395	0	NR	525	462	NR	655	491	NR	785	7	NR	915	0	NR
400	1	NR	530	476	NR	660	431	NR	790	6	NR	920	0	NR
405	2	NR	535	495	NR	665	376	NR	795	5	NR	925	0	NR
410	5	NR	540	520	NR	670	325	NR	800	4	NR	930	0	NR
415	10	NR	545	547	NR	675	280	NR	805	4	NR	935	0	NR
420	21	NR	550	576	NR	680	241	NR	810	3	NR	940	0	NR
425	42	NR	555	612	NR	685	207	NR	815	3	NR	945	0	NR
430	77	NR	560	651	NR	690	176	NR	820	2	NR	950	0	NR
435	135	NR	565	693	NR	695	149	NR	825	2	NR	955	0	NR
440	215	NR	570	741	NR	700	127	NR	830	2	NR	960	0	NR
445	321	NR	575	793	NR	705	107	NR	835	2	NR	965	0	NR
450	479	NR	580	847	NR	710	89	NR	840	1	NR	970	0	NR
455	432	NR	585	897	NR	715	75	NR	845	1	NR	975	0	NR
460	265	NR	590	940	NR	720	62	NR	850	1	NR	980	0	NR
465	231	NR	595	971	NR	725	51	NR	855	1	NR	985	0	NR
470	204	NR	600	993	NR	730	43	NR	860	1	NR	990	0	NR
475	168	NR	605	996	NR	735	36	NR	865	1	NR	995	0	NR
480	183	NR	610	986	NR	740	31	NR	870	1	NR	1000	0	NR
485	223	NR	615	957	NR	745	26	NR	875	0	NR			

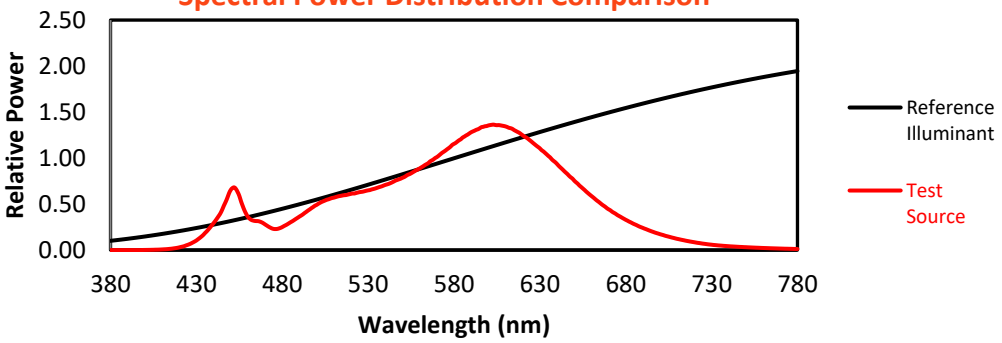
REPORT NUMBER: SP1-2411-284-4

TM-30-18

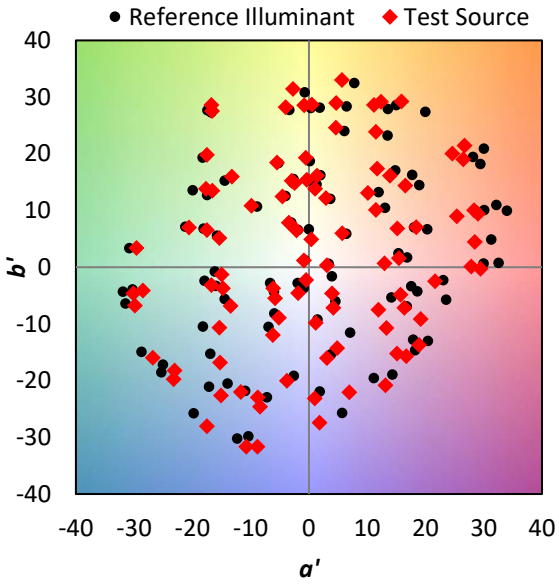
Summary

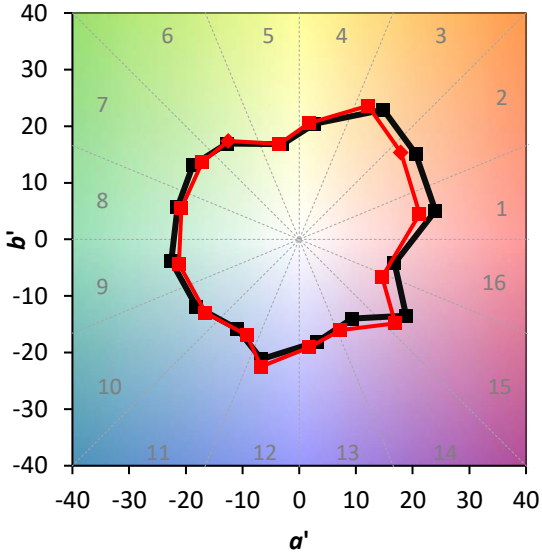
R_f = 86.1
R_g = 94.9
CIE R_a = 82.9
R_9 = 3.9

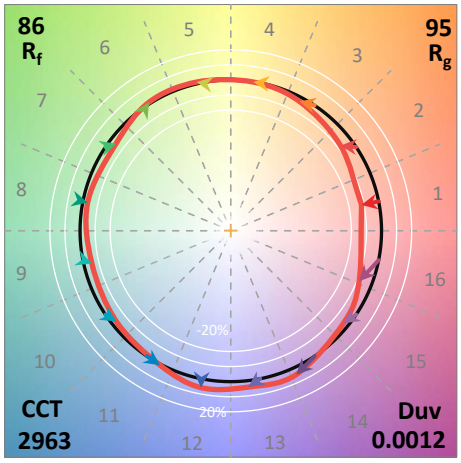
Spectral Power Distribution Comparison

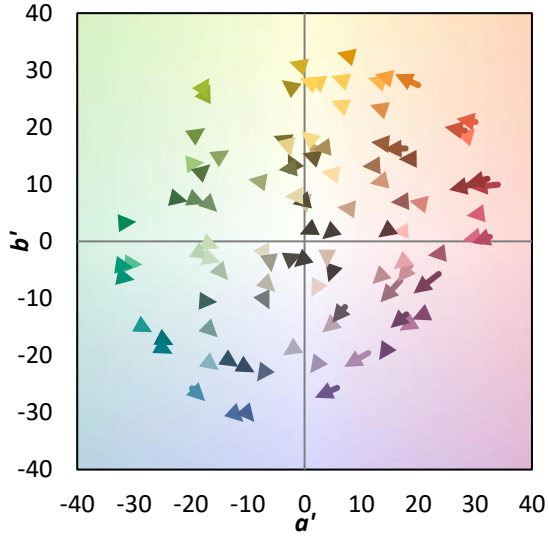


Color Vector Graphics







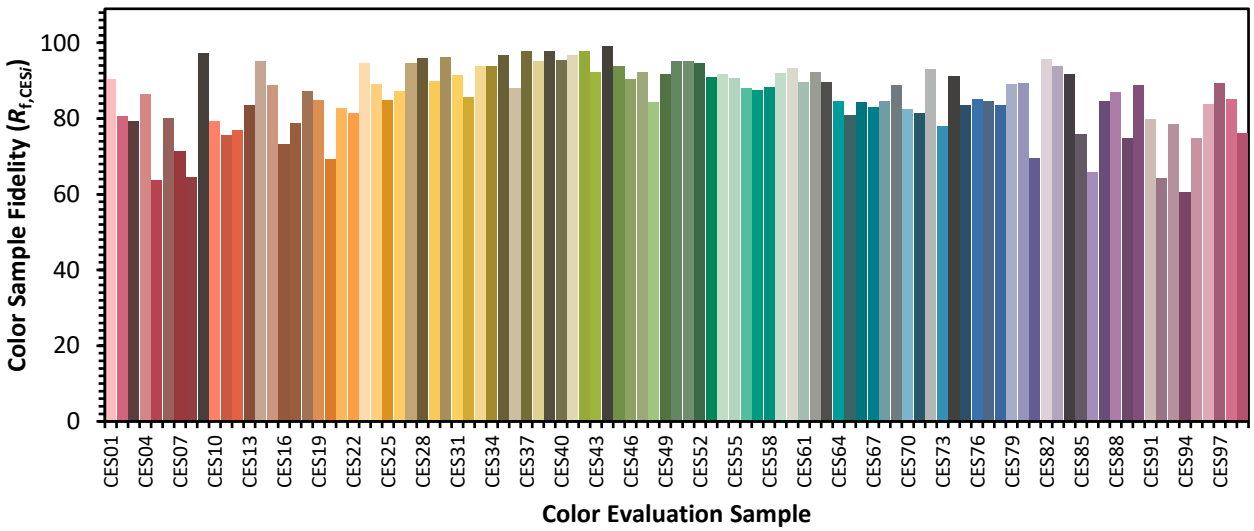


REPORT NUMBER: SP1-2411-284-4

TM-30-18

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

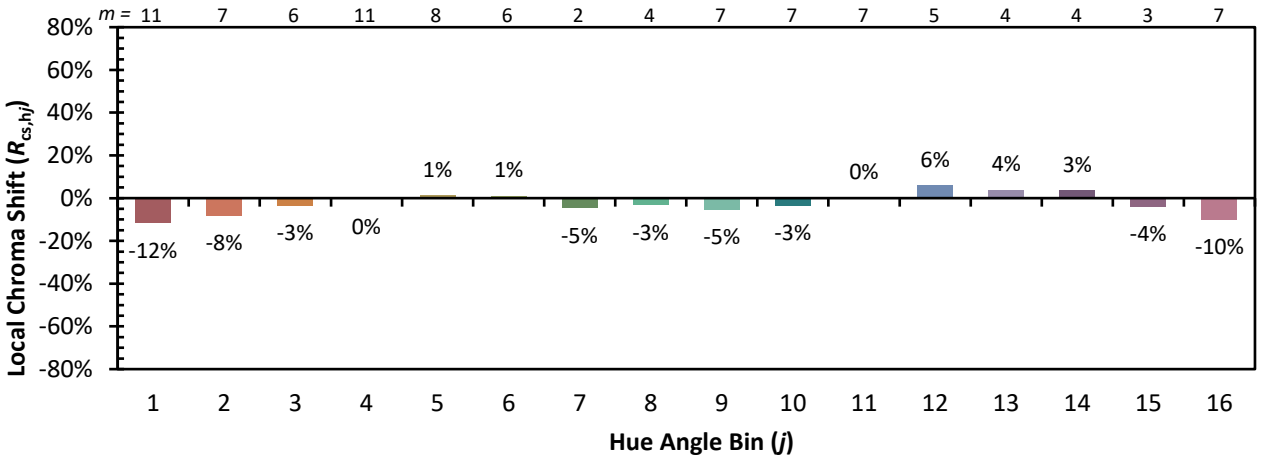
CES01 = 86	CES26 = 87	CES51 = 95	CES76 = 85
CES02 = 63	CES27 = 95	CES52 = 95	CES77 = 85
CES03 = 31	CES28 = 96	CES53 = 91	CES78 = 83
CES04 = 70	CES29 = 90	CES54 = 92	CES79 = 89
CES05 = 50	CES30 = 96	CES55 = 91	CES80 = 89
CES06 = 51	CES31 = 92	CES56 = 88	CES81 = 70
CES07 = 42	CES32 = 86	CES57 = 87	CES82 = 96
CES08 = 41	CES33 = 94	CES58 = 88	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 97	CES60 = 93	CES85 = 76
CES11 = 59	CES36 = 88	CES61 = 90	CES86 = 66
CES12 = 65	CES37 = 98	CES62 = 92	CES87 = 85
CES13 = 44	CES38 = 95	CES63 = 90	CES88 = 87
CES14 = 74	CES39 = 98	CES64 = 85	CES89 = 75
CES15 = 72	CES40 = 96	CES65 = 81	CES90 = 89
CES16 = 48	CES41 = 97	CES66 = 84	CES91 = 80
CES17 = 50	CES42 = 98	CES67 = 83	CES92 = 64
CES18 = 57	CES43 = 92	CES68 = 85	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 89	CES94 = 61
CES20 = 67	CES45 = 94	CES70 = 83	CES95 = 75
CES21 = 87	CES46 = 91	CES71 = 81	CES96 = 84
CES22 = 79	CES47 = 92	CES72 = 93	CES97 = 89
CES23 = 92	CES48 = 84	CES73 = 78	CES98 = 85
CES24 = 91	CES49 = 92	CES74 = 91	CES99 = 76
CES25 = 72	CES50 = 95	CES75 = 84	

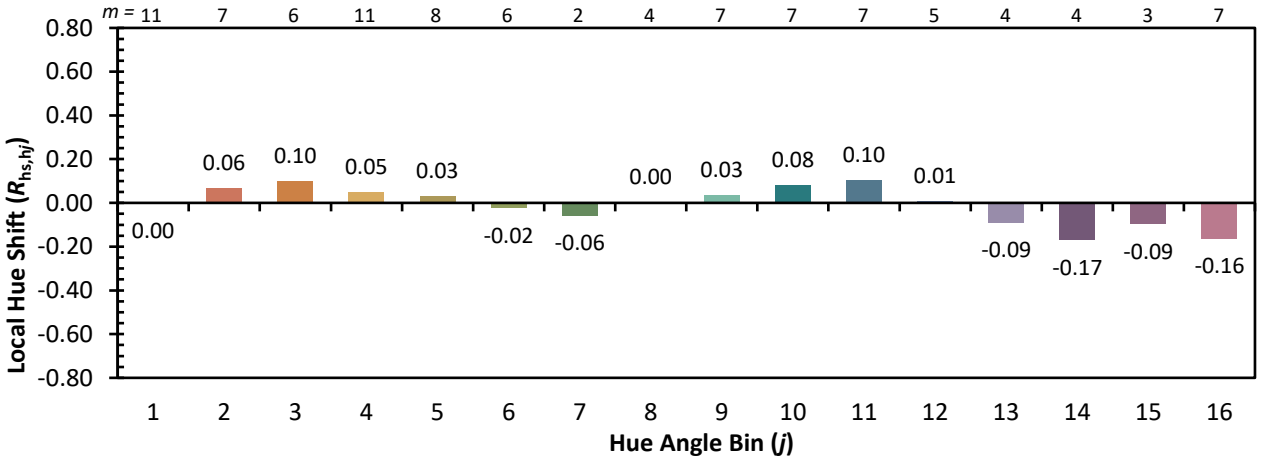


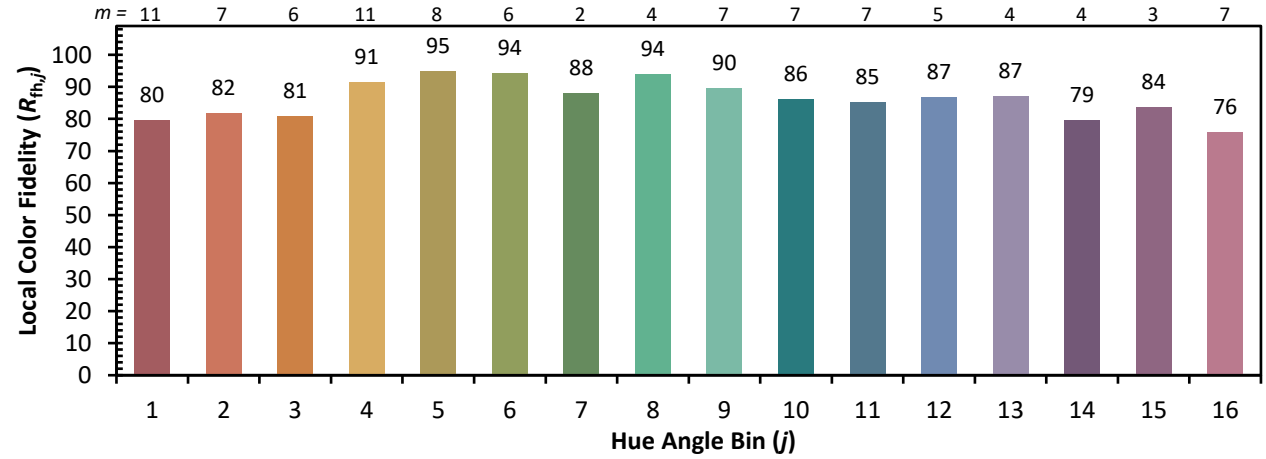
REPORT NUMBER: SP1-2411-284-4

TM-30-18

Color Rendition by Hue-Angle Bin



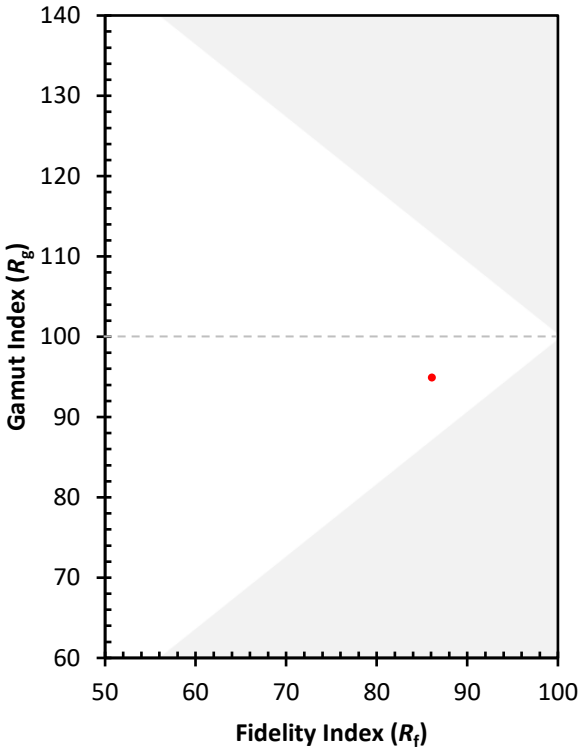


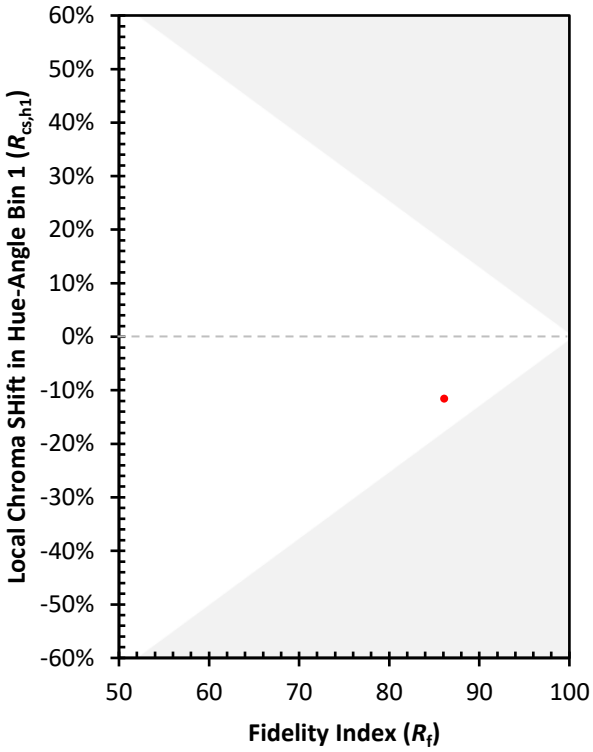


REPORT NUMBER: SP1-2411-284-4

TM-30-18

Measure Comparisons





(END OF REPORT)