

Classified
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: HALO

Report Number: P832486

Luminaire Tested: **7ORB15FS-1PK-ED-CA-930**

Issue Date: 05/08/2024



Test Information

Test Method: LM-79-08
Report Number: P832486
Test Lab: Intertek
Issue Date: 05/08/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: 7ORB15FS-1PK-ED-CA-930
Description: 7 inch 90 CRI COLOR SELECTABLE SPIN LIGHT WITH E26 BASE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

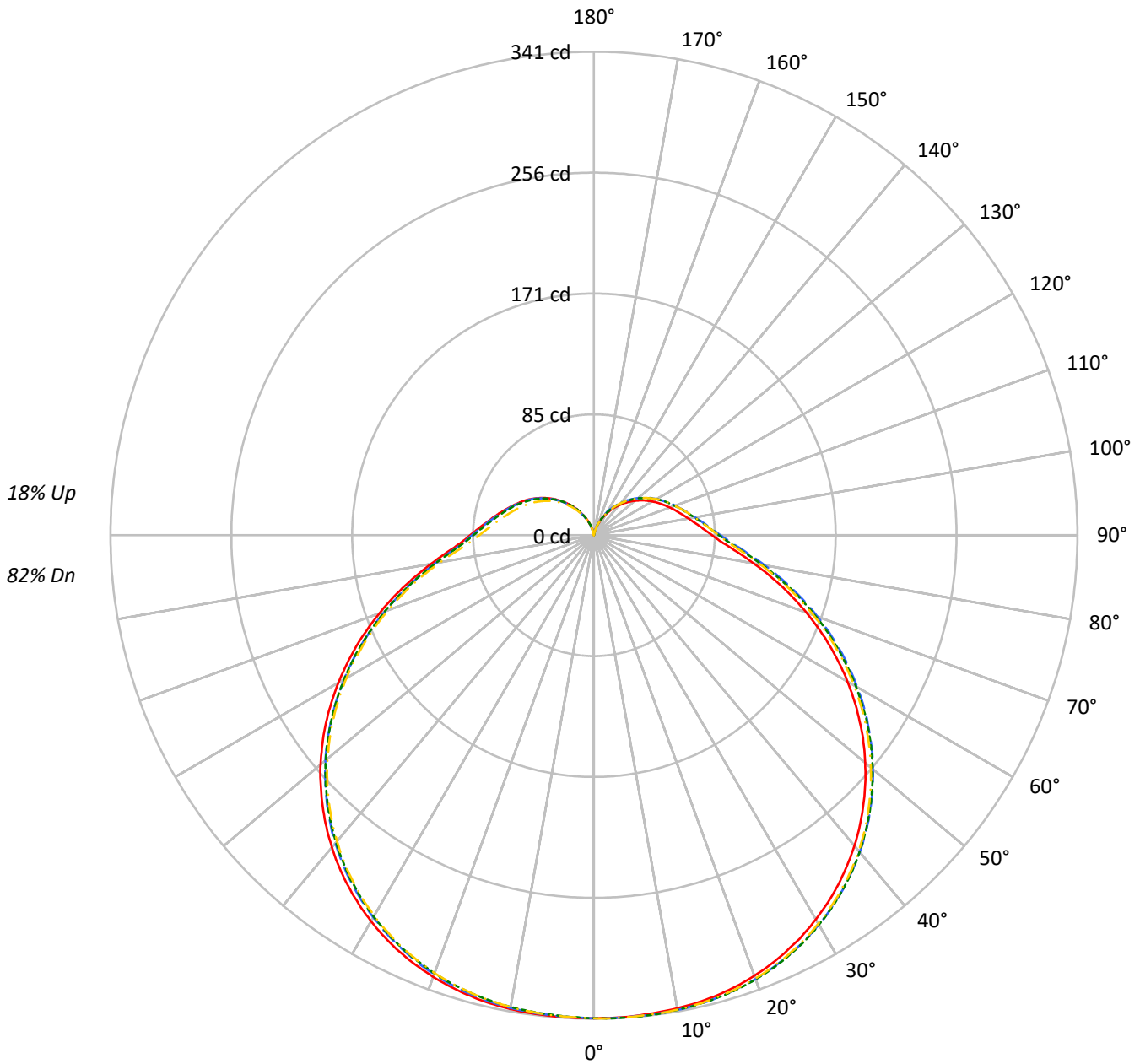
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1615.1 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.37 / 1.5
Luminous Opening: Vertical Cylinder (Dia: 0.6' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 15.7
Input Voltage (V): 120
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

TEST NUMBER: P832486
CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°

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



TEST NUMBER: P832486

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	85	85	85	82
1	102	96	91	86	97	92	87	83	84	80	77	77	74	71	71	68	66	66	66	66	63
2	92	82	74	68	87	79	72	66	72	66	61	66	61	57	60	57	53	53	53	53	50
3	83	71	62	55	79	68	60	54	63	56	50	57	52	47	52	48	44	44	44	44	41
4	75	63	53	46	72	60	51	45	55	48	42	51	45	40	46	41	37	37	37	37	34
5	69	56	46	39	66	53	45	38	49	42	36	45	39	34	41	36	32	32	32	32	29
6	64	50	40	34	60	48	39	33	44	37	31	41	34	29	37	32	28	28	28	28	25
7	59	45	36	29	56	43	35	29	40	33	27	37	30	26	34	29	24	24	24	24	22
8	55	41	32	26	52	39	31	25	36	29	24	34	27	23	31	26	22	22	22	22	19
9	51	37	29	23	48	36	28	23	33	26	22	31	25	20	29	23	19	19	19	19	17
10	48	34	26	21	45	33	25	20	31	24	19	29	23	18	27	21	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	12970	12970	12970	12970
5°	12428	12453	12431	12399
10°	11973	12015	11994	11941
15°	11594	11650	11608	11539
20°	11229	11321	11256	11165
25°	10877	10998	10917	10810
30°	10530	10678	10580	10452
35°	10186	10359	10237	10095
40°	9832	10024	9883	9728
45°	9455	9677	9519	9353
50°	9060	9307	9133	8962
55°	8640	8904	8712	8530
60°	8194	8467	8257	8075
65°	7716	8006	7783	7593
70°	7219	7527	7296	7106
75°	6723	7049	6817	6624
80°	6256	6590	6388	6202
85°	5936	6276	6122	5949



TEST NUMBER: P832486
 CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.4	2.0
10°-20°	95.1	5.9
20°-30°	149.4	9.2
30°-40°	188.9	11.7
40°-50°	208.5	12.9
50°-60°	206.0	12.8
60°-70°	182.9	11.3
70°-80°	146.0	9.0
80°-90°	108.3	6.7
90°-100°	85.0	5.3
100°-110°	68.8	4.3
110°-120°	54.5	3.4
120°-130°	40.3	2.5
130°-140°	26.6	1.6
140°-150°	14.9	0.9
150°-160°	6.2	0.4
160°-170°	1.4	0.1
170°-180°	0.0	0.0
0°-30°	276.9	17.1
0°-40°	465.8	28.8
0°-60°	880.3	54.5
0°-90°	1317.4	81.6
90°-120°	208.2	12.9
90°-150°	290.1	18.0
90°-180°	298.0	18.5
0°-180°	1615.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	341	341	341	341	341	
5°	340	341	340	340	340	32
15°	336	338	336	334	336	95
25°	323	327	324	321	323	149
35°	301	306	302	298	301	188
45°	269	275	271	266	269	208
55°	229	236	231	226	229	205
65°	183	190	185	180	183	181
75°	136	143	138	134	136	144
85°	96	102	99	96	96	82
90°	83	88	87	85	83	46
95°	75	79	79	77	75	60
105°	62	66	66	65	62	66
115°	52	56	56	55	52	52
125°	43	46	46	45	43	38
135°	33	35	35	34	33	25
145°	23	24	24	24	23	14
155°	13	13	13	13	13	6
165°	4	4	4	4	4	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

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



TEST NUMBER: P832486

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	340.7	340.7	340.7	340.7	340.7	340.7	340.7	340.7	340.7	340.7	340.7
1°	340.6	340.8	340.7	340.5	340.8	340.7	340.9	340.8	340.7	340.8	340.5
2°	340.6	340.9	340.8	340.6	341.0	340.9	340.9	340.7	340.6	340.7	340.3
3°	340.5	340.8	340.8	340.6	341.0	340.9	340.8	340.7	340.6	340.7	340.2
4°	340.5	340.8	340.7	340.7	340.9	340.9	340.8	340.7	340.7	340.5	340.2
5°	340.3	340.6	340.5	340.6	341.0	340.7	340.6	340.7	340.4	340.3	340.0
6°	339.9	340.4	340.7	340.5	340.9	340.8	340.4	340.6	340.2	340.1	339.7
7°	339.7	340.4	340.6	340.5	340.8	340.8	340.4	340.6	340.1	340.0	339.5
8°	339.5	340.2	340.4	340.4	340.6	340.6	340.4	340.3	339.9	339.7	339.2
9°	339.2	340.0	340.2	340.2	340.3	340.5	340.1	340.1	339.7	339.4	338.9
10°	338.7	339.4	340.0	340.1	339.9	340.3	339.7	339.9	339.3	339.0	338.6
11°	338.4	339.2	339.7	339.8	339.5	339.9	339.5	339.7	338.9	338.5	338.0
12°	337.9	338.8	339.2	339.5	339.3	339.7	339.0	339.1	338.4	338.1	337.4
13°	337.3	338.3	338.9	339.1	338.7	339.4	338.6	338.6	337.9	337.4	336.8
14°	336.6	337.5	338.4	338.6	338.3	338.8	338.0	338.0	337.3	336.8	336.0
15°	336.0	336.9	337.6	338.0	337.6	338.4	337.2	337.3	336.4	336.0	335.2
16°	335.0	336.1	336.8	337.3	337.0	337.7	336.5	336.6	335.7	335.2	334.4
17°	334.1	335.1	336.0	336.5	336.3	336.9	335.7	335.7	334.7	334.1	333.2
18°	333.1	334.2	335.0	335.7	335.4	336.0	334.7	334.7	333.7	333.1	332.1
19°	332.0	333.2	334.2	334.8	334.4	335.1	333.8	333.7	332.7	331.9	330.9
20°	330.7	332.0	333.2	333.7	333.4	334.0	332.7	332.6	331.5	330.7	329.6
21°	329.4	330.8	331.9	332.6	332.2	332.7	331.6	331.4	330.1	329.4	328.2
22°	327.9	329.5	330.7	331.3	331.0	331.4	330.3	330.0	328.8	328.0	326.7
23°	326.5	328.1	329.4	330.2	329.7	330.2	328.8	328.6	327.4	326.3	325.0
24°	324.8	326.5	327.9	328.9	328.2	328.6	327.4	327.1	325.9	324.6	323.2
25°	323.0	324.8	326.4	327.3	326.6	327.2	325.8	325.5	324.2	322.9	321.5
26°	321.1	323.1	324.8	325.8	325.0	325.4	324.2	323.7	322.5	321.1	319.7
27°	319.4	321.3	323.1	324.1	323.3	323.6	322.3	322.0	320.5	319.2	317.7
28°	317.2	319.5	321.1	322.3	321.4	321.8	320.5	320.0	318.7	317.3	315.7
29°	315.2	317.4	319.2	320.5	319.5	319.7	318.6	318.0	316.6	315.1	313.4
30°	312.9	315.2	317.2	318.5	317.3	317.8	316.5	315.8	314.4	313.0	311.2
31°	310.6	313.0	315.1	316.4	315.2	315.5	314.3	313.6	312.1	310.7	308.9
32°	308.3	310.7	312.8	314.1	313.0	313.2	312.0	311.4	309.8	308.4	306.5
33°	305.8	308.3	310.5	311.9	310.6	310.9	309.7	309.0	307.3	305.8	303.9
34°	303.3	305.8	308.0	309.5	308.2	308.3	307.3	306.4	304.8	303.2	301.3
35°	300.6	303.3	305.6	307.2	305.7	305.9	304.6	303.8	302.1	300.5	298.6
36°	297.8	300.6	303.0	304.7	303.0	303.2	302.1	301.0	299.4	297.7	295.8
37°	294.9	297.8	300.3	302.0	300.3	300.4	299.3	298.3	296.5	294.8	292.9
38°	292.0	294.9	297.5	299.2	297.5	297.7	296.5	295.3	293.6	291.9	289.9
39°	288.9	291.9	294.7	296.3	294.6	294.7	293.5	292.3	290.7	288.8	286.8
40°	285.9	288.9	291.6	293.5	291.5	291.6	290.5	289.3	287.4	285.6	283.7
41°	282.5	285.7	288.6	290.3	288.5	288.5	287.3	286.1	284.2	282.3	280.5
42°	279.3	282.5	285.5	287.4	285.2	285.4	284.2	282.9	281.0	279.1	277.1
43°	275.9	279.2	282.1	284.2	281.9	282.1	280.8	279.5	277.6	275.6	273.6
44°	272.4	275.7	278.9	280.9	278.5	278.7	277.4	276.0	274.1	272.1	270.0



TEST NUMBER: P832486

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	268.8	272.2	275.3	277.5	275.1	275.1	273.8	272.5	270.6	268.4	266.4
46°	265.2	268.6	271.8	274.0	271.5	271.6	270.2	268.9	267.1	264.8	262.7
47°	261.4	265.0	268.3	270.5	267.8	267.9	266.5	265.2	263.2	261.0	258.9
48°	257.6	261.2	264.5	266.8	264.1	264.2	262.8	261.4	259.5	257.2	255.0
49°	253.7	257.4	260.8	263.1	260.4	260.4	258.9	257.5	255.7	253.3	251.2
50°	249.7	253.5	256.8	259.3	256.5	256.4	255.0	253.5	251.7	249.3	247.1
51°	245.7	249.5	252.9	255.3	252.5	252.5	251.0	249.6	247.5	245.2	243.1
52°	241.6	245.4	249.0	251.2	248.5	248.4	246.9	245.5	243.4	241.1	238.9
53°	237.6	241.3	244.8	247.3	244.3	244.1	242.7	241.4	239.3	236.8	234.7
54°	233.2	237.1	240.7	243.0	240.1	239.9	238.4	237.1	235.0	232.5	230.4
55°	228.8	232.9	236.4	238.9	235.8	235.7	234.2	232.7	230.7	228.2	226.0
56°	224.4	228.6	232.3	234.7	231.6	231.4	229.8	228.3	226.3	223.8	221.6
57°	220.1	224.1	227.8	230.4	227.1	227.0	225.4	223.8	221.8	219.3	217.1
58°	215.6	219.7	223.5	226.0	222.5	222.5	221.0	219.3	217.3	214.8	212.6
59°	211.1	215.2	219.0	221.6	217.9	218.1	216.4	214.8	212.8	210.3	208.1
60°	206.5	210.7	214.5	217.1	213.4	213.5	211.8	210.2	208.1	205.7	203.4
61°	201.9	206.1	210.0	212.7	208.7	208.8	207.3	205.6	203.4	201.2	198.9
62°	197.2	201.5	205.4	208.0	204.0	204.1	202.6	201.0	198.7	196.5	194.3
63°	192.6	196.8	200.8	203.5	199.4	199.4	198.0	196.2	194.1	191.8	189.6
64°	187.9	192.2	196.1	198.8	194.7	194.6	193.2	191.5	189.3	187.1	184.9
65°	183.1	187.4	191.4	194.1	190.0	189.9	188.5	186.8	184.7	182.4	180.2
66°	178.5	182.8	186.8	189.4	185.3	185.2	183.8	182.0	179.9	177.7	175.5
67°	173.7	178.0	182.0	184.6	180.5	180.5	179.1	177.3	175.2	173.0	170.8
68°	169.0	173.3	177.3	179.9	175.8	175.7	174.2	172.7	170.6	168.3	166.2
69°	164.1	168.5	172.6	175.1	171.0	170.9	169.6	167.9	165.8	163.6	161.4
70°	159.4	163.8	167.8	170.4	166.2	166.1	164.7	163.1	161.1	158.9	156.8
71°	154.7	159.1	163.1	165.7	161.5	161.3	160.0	158.4	156.5	154.3	152.2
72°	150.1	154.4	158.5	161.0	156.8	156.6	155.2	153.7	151.8	149.7	147.6
73°	145.4	149.7	153.7	156.3	152.1	151.9	150.6	149.1	147.2	145.1	143.1
74°	140.7	145.1	149.0	151.6	147.5	147.2	145.8	144.4	142.6	140.6	138.7
75°	136.2	140.5	144.5	147.0	142.8	142.6	141.3	139.9	138.1	136.1	134.3
76°	131.6	136.0	139.9	142.4	138.1	137.9	136.6	135.3	133.6	131.7	129.9
77°	127.3	131.5	135.4	137.9	133.7	133.4	132.2	130.9	129.3	127.4	125.7
78°	122.9	127.1	131.0	133.4	129.1	129.0	127.8	126.6	125.0	123.3	121.5
79°	118.6	122.8	126.6	129.0	124.8	124.6	123.5	122.3	120.8	119.1	117.5
80°	114.4	118.6	122.4	124.7	120.5	120.3	119.3	118.2	116.8	115.3	113.6
81°	110.5	114.5	118.2	120.4	116.3	116.2	115.2	114.2	112.9	111.5	109.8
82°	106.6	110.5	114.2	116.4	112.4	112.2	111.3	110.4	109.2	107.7	106.3
83°	102.9	106.8	110.3	112.4	108.6	108.4	107.5	106.7	105.6	104.3	102.9
84°	99.4	103.1	106.7	108.6	104.9	104.8	104.0	103.2	102.2	101.0	99.7
85°	96.0	99.7	103.1	105.0	101.5	101.4	100.6	100.0	99.0	98.0	96.8
86°	93.0	96.5	99.8	101.6	98.2	98.1	97.5	97.0	96.1	95.2	94.1
87°	90.1	93.6	96.7	98.4	95.3	95.2	94.7	94.2	93.5	92.8	91.8
88°	87.6	90.9	94.0	95.5	92.7	92.6	92.1	91.8	91.2	90.5	89.7
89°	85.3	88.5	91.4	92.8	90.3	90.2	89.9	89.6	89.2	88.5	87.8

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



TEST NUMBER: P832486

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	83.3	86.4	89.2	90.5	88.2	88.2	87.9	87.7	87.3	86.7	86.0
91°	81.4	84.4	87.2	88.4	86.2	86.2	86.0	85.9	85.5	85.0	84.3
92°	79.6	82.6	85.3	86.5	84.4	84.4	84.2	84.1	83.8	83.2	82.6
93°	77.9	80.8	83.4	84.6	82.6	82.7	82.5	82.4	82.1	81.7	81.1
94°	76.3	79.1	81.7	82.8	80.9	81.0	80.8	80.8	80.6	80.1	79.6
95°	74.7	77.4	80.0	81.1	79.3	79.4	79.3	79.3	79.0	78.6	78.1
96°	73.2	75.9	78.4	79.4	77.8	77.8	77.7	77.7	77.5	77.2	76.7
97°	71.7	74.3	76.9	77.9	76.3	76.3	76.3	76.3	76.1	75.8	75.3
98°	70.4	72.9	75.4	76.4	74.8	74.9	74.8	74.9	74.7	74.4	74.0
99°	69.0	71.5	73.9	74.9	73.4	73.5	73.5	73.6	73.4	73.1	72.7
100°	67.8	70.2	72.5	73.5	72.1	72.2	72.2	72.3	72.2	71.9	71.5
101°	66.5	68.9	71.3	72.2	70.8	70.9	70.9	71.0	70.9	70.7	70.3
102°	65.4	67.7	70.0	70.9	69.5	69.7	69.7	69.8	69.7	69.5	69.1
103°	64.2	66.5	68.7	69.6	68.3	68.5	68.5	68.6	68.6	68.3	68.0
104°	63.1	65.3	67.6	68.4	67.2	67.3	67.3	67.4	67.4	67.2	66.8
105°	62.0	64.1	66.4	67.2	66.0	66.1	66.2	66.2	66.3	66.0	65.7
106°	61.0	63.1	65.3	66.1	64.9	65.0	65.0	65.2	65.2	65.0	64.6
107°	60.0	62.0	64.2	65.0	63.8	63.9	64.0	64.1	64.1	63.9	63.6
108°	59.0	61.0	63.1	63.9	62.7	62.9	62.9	63.0	63.0	62.8	62.6
109°	58.0	60.0	62.0	62.8	61.7	61.8	61.8	62.0	62.0	61.8	61.5
110°	57.0	59.0	61.0	61.8	60.7	60.8	60.8	61.0	61.0	60.8	60.5
111°	56.1	58.0	60.0	60.8	59.6	59.8	59.8	59.9	60.0	59.8	59.5
112°	55.1	57.0	59.0	59.7	58.6	58.8	58.8	58.9	59.0	58.8	58.5
113°	54.2	56.0	58.0	58.8	57.6	57.8	57.8	57.9	58.0	57.8	57.6
114°	53.2	55.1	57.0	57.7	56.8	56.9	56.9	57.0	57.1	56.9	56.7
115°	52.3	54.1	56.0	56.7	55.9	56.0	56.0	56.1	56.2	56.0	55.9
116°	51.4	53.2	55.0	55.8	55.0	55.1	55.1	55.2	55.3	55.1	54.9
117°	50.5	52.2	54.0	54.8	54.0	54.1	54.1	54.2	54.2	54.1	53.9
118°	49.5	51.3	53.0	53.8	53.0	53.1	53.1	53.2	53.2	53.0	52.8
119°	48.6	50.3	52.1	52.8	51.9	52.1	52.1	52.2	52.2	52.0	51.8
120°	47.6	49.3	51.1	51.8	50.9	51.0	51.0	51.1	51.1	51.0	50.8
121°	46.7	48.4	50.1	50.7	49.9	50.0	50.0	50.1	50.1	49.9	49.7
122°	45.7	47.4	49.1	49.7	48.9	49.0	48.9	49.1	49.0	48.8	48.7
123°	44.7	46.4	48.1	48.7	47.8	47.9	47.9	48.0	48.0	47.8	47.6
124°	43.8	45.4	47.0	47.6	46.8	46.9	46.8	46.9	46.9	46.7	46.5
125°	42.8	44.4	46.0	46.6	45.7	45.8	45.8	45.9	45.9	45.6	45.4
126°	41.8	43.4	45.0	45.6	44.7	44.8	44.7	44.8	44.8	44.5	44.4
127°	40.8	42.4	43.9	44.5	43.6	43.7	43.7	43.7	43.7	43.5	43.3
128°	39.8	41.3	42.9	43.4	42.5	42.6	42.6	42.6	42.6	42.4	42.2
129°	38.8	40.3	41.8	42.4	41.5	41.5	41.6	41.6	41.5	41.3	41.1
130°	37.8	39.3	40.8	41.3	40.4	40.4	40.5	40.5	40.4	40.2	40.0
131°	36.8	38.2	39.7	40.2	39.3	39.4	39.4	39.4	39.3	39.0	38.9
132°	35.8	37.2	38.7	39.2	38.2	38.3	38.3	38.3	38.2	37.9	37.8
133°	34.8	36.2	37.6	38.1	37.1	37.2	37.2	37.2	37.1	36.8	36.6
134°	33.7	35.1	36.5	37.0	36.0	36.1	36.1	36.1	36.0	35.7	35.5



TEST NUMBER: P832486

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	32.7	34.1	35.4	35.9	34.9	35.0	35.0	35.0	34.9	34.6	34.4
136°	31.7	33.0	34.4	34.8	33.8	33.9	33.9	33.9	33.8	33.5	33.3
137°	30.7	32.0	33.3	33.7	32.7	32.8	32.8	32.7	32.7	32.4	32.2
138°	29.7	30.9	32.2	32.7	31.6	31.7	31.7	31.7	31.5	31.2	31.1
139°	28.6	29.9	31.1	31.6	30.5	30.6	30.6	30.6	30.4	30.1	29.9
140°	27.6	28.8	30.0	30.5	29.4	29.5	29.5	29.4	29.3	29.0	28.8
141°	26.6	27.8	29.0	29.4	28.3	28.4	28.4	28.3	28.2	27.9	27.7
142°	25.6	26.7	27.9	28.3	27.2	27.3	27.3	27.2	27.1	26.8	26.6
143°	24.6	25.8	26.8	27.2	26.1	26.2	26.2	26.1	26.0	25.7	25.4
144°	23.6	24.8	25.6	26.1	25.0	25.1	25.1	25.0	24.9	24.6	24.3
145°	22.6	23.7	24.6	25.0	23.9	24.0	24.0	23.9	23.8	23.4	23.2
146°	21.6	22.7	23.7	24.0	22.8	22.9	22.9	22.8	22.7	22.3	22.1
147°	20.5	21.6	22.6	22.9	21.7	21.8	21.8	21.7	21.6	21.2	21.0
148°	19.5	20.6	21.5	21.9	20.7	20.7	20.7	20.7	20.5	20.2	19.9
149°	18.5	19.5	20.5	20.8	19.6	19.7	19.7	19.6	19.4	19.1	18.8
150°	17.5	18.5	19.4	19.7	18.5	18.6	18.6	18.5	18.3	18.0	17.7
151°	16.5	17.5	18.3	18.7	17.5	17.5	17.5	17.5	17.3	16.9	16.7
152°	15.5	16.5	17.3	17.6	16.4	16.5	16.5	16.4	16.2	15.9	15.6
153°	14.5	15.4	16.2	16.6	15.3	15.4	15.4	15.4	15.2	14.8	14.6
154°	13.6	14.4	15.2	15.5	14.3	14.4	14.4	14.3	14.2	13.8	13.5
155°	12.6	13.5	14.2	14.5	13.3	13.4	13.4	13.3	13.1	12.8	12.5
156°	11.7	12.5	13.2	13.5	12.3	12.4	12.4	12.3	12.1	11.8	11.5
157°	10.7	11.5	12.2	12.5	11.3	11.4	11.4	11.4	11.2	10.8	10.5
158°	9.8	10.6	11.2	11.5	10.4	10.5	10.5	10.4	10.2	9.9	9.6
159°	8.9	9.6	10.2	10.5	9.4	9.5	9.5	9.5	9.3	8.9	8.6
160°	8.1	8.7	9.3	9.6	8.5	8.6	8.6	8.5	8.3	8.0	7.7
161°	7.2	7.9	8.4	8.6	7.6	7.7	7.7	7.6	7.5	7.2	6.9
162°	6.4	7.0	7.5	7.7	6.7	6.8	6.8	6.8	6.6	6.3	6.1
163°	5.6	6.2	6.6	6.9	5.9	6.0	6.0	6.0	5.8	5.6	5.3
164°	4.9	5.4	5.8	6.0	5.2	5.2	5.3	5.2	5.1	4.8	4.5
165°	4.1	4.6	5.0	5.2	4.4	4.5	4.5	4.4	4.3	4.0	3.8
166°	3.5	3.9	4.2	4.4	3.7	3.7	3.8	3.7	3.6	3.4	3.1
167°	2.8	3.2	3.5	3.7	3.0	3.1	3.1	3.1	3.0	2.7	2.5
168°	2.3	2.6	2.8	3.0	2.4	2.5	2.5	2.5	2.3	2.2	1.9
169°	1.8	2.1	2.3	2.5	1.9	1.9	1.9	1.9	1.8	1.6	1.5
170°	1.3	1.6	1.8	1.9	1.4	1.4	1.4	1.4	1.3	1.2	1.0
171°	1.0	1.2	1.3	1.5	1.0	1.0	1.0	1.0	0.9	0.8	0.7
172°	0.6	0.8	0.9	1.0	0.7	0.7	0.7	0.6	0.6	0.5	0.4
173°	0.4	0.5	0.6	0.7	0.4	0.4	0.4	0.4	0.4	0.3	0.2
174°	0.3	0.3	0.4	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.1
175°	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1
176°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
177°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
178°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P832486
CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	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



TEST NUMBER: P832486

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	340.7	340.7	340.7	340.7	340.7	340.7
1°	340.4	340.5	340.6	340.6	340.7	340.6
2°	340.3	340.2	340.4	340.4	340.6	340.6
3°	340.1	340.1	340.2	340.2	340.4	340.5
4°	339.9	339.7	340.0	340.0	340.3	340.5
5°	339.6	339.5	339.8	339.8	340.2	340.3
6°	339.2	339.3	339.6	339.6	339.9	339.9
7°	339.0	339.0	339.3	339.2	339.6	339.7
8°	338.6	338.6	339.0	338.8	339.3	339.5
9°	338.1	338.3	338.6	338.5	338.8	339.2
10°	337.7	337.8	338.1	338.0	338.3	338.7
11°	337.1	337.3	337.5	337.3	337.8	338.4
12°	336.4	336.6	336.9	336.7	337.2	337.9
13°	335.8	336.0	336.3	336.0	336.5	337.3
14°	335.0	335.2	335.5	335.3	335.7	336.6
15°	334.1	334.4	334.6	334.3	335.0	336.0
16°	333.1	333.4	333.6	333.3	334.0	335.0
17°	332.0	332.4	332.4	332.3	333.1	334.1
18°	330.9	331.3	331.3	331.1	332.0	333.1
19°	329.7	330.1	329.8	329.9	330.8	332.0
20°	328.4	328.8	328.6	328.6	329.6	330.7
21°	326.9	327.3	327.2	327.0	328.2	329.4
22°	325.3	325.7	325.8	325.5	326.7	327.9
23°	323.8	324.3	324.1	324.0	325.1	326.5
24°	322.1	322.6	322.5	322.2	323.4	324.8
25°	320.3	321.0	320.7	320.5	321.7	323.0
26°	318.4	319.1	318.7	318.6	319.7	321.1
27°	316.4	317.2	316.8	316.5	317.8	319.4
28°	314.3	315.1	314.6	314.4	315.8	317.2
29°	312.1	312.9	312.5	312.2	313.5	315.2
30°	309.7	310.6	310.1	310.0	311.2	312.9
31°	307.4	308.3	307.8	307.5	308.8	310.6
32°	304.9	305.8	305.4	305.2	306.4	308.3
33°	302.4	303.2	302.8	302.5	303.8	305.8
34°	299.7	300.5	300.2	299.8	301.3	303.3
35°	297.0	297.9	297.5	297.0	298.5	300.6
36°	294.2	295.1	294.7	294.2	295.7	297.8
37°	291.2	292.1	291.7	291.3	292.8	294.9
38°	288.2	289.1	288.7	288.2	289.8	292.0
39°	285.0	286.0	285.5	285.1	286.7	288.9
40°	281.7	282.9	282.3	281.9	283.6	285.9
41°	278.4	279.6	278.9	278.6	280.3	282.5
42°	275.1	276.4	275.6	275.3	276.9	279.3
43°	271.5	272.9	272.0	271.8	273.4	275.9
44°	268.0	269.4	268.5	268.2	270.0	272.4

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



TEST NUMBER: P832486

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	264.4	265.9	264.9	264.6	266.3	268.8
46°	260.6	262.2	261.0	260.8	262.5	265.2
47°	256.9	258.6	257.2	257.0	258.8	261.4
48°	253.1	254.7	253.4	253.2	254.8	257.6
49°	249.2	250.9	249.5	249.3	250.9	253.7
50°	245.0	247.0	245.5	245.2	246.9	249.7
51°	240.9	242.8	241.4	241.1	242.8	245.7
52°	236.7	238.7	237.2	236.9	238.6	241.6
53°	232.3	234.5	233.0	232.7	234.5	237.6
54°	228.1	230.2	228.7	228.4	230.2	233.2
55°	223.6	225.9	224.4	224.0	225.8	228.8
56°	219.1	221.6	220.0	219.7	221.5	224.4
57°	214.7	217.0	215.5	215.1	217.0	220.1
58°	210.1	212.5	210.9	210.7	212.5	215.6
59°	205.6	208.0	206.4	206.1	208.0	211.1
60°	201.0	203.5	201.8	201.5	203.4	206.5
61°	196.5	198.9	197.1	196.9	198.8	201.9
62°	191.8	194.2	192.4	192.2	194.1	197.2
63°	187.1	189.6	187.8	187.5	189.4	192.6
64°	182.5	184.9	183.2	182.8	184.7	187.9
65°	177.8	180.2	178.5	178.1	180.0	183.1
66°	173.1	175.6	173.8	173.4	175.3	178.5
67°	168.4	170.8	169.1	168.6	170.5	173.7
68°	163.8	166.1	164.5	163.9	165.7	169.0
69°	159.1	161.4	159.7	159.2	161.0	164.1
70°	154.5	156.9	155.0	154.5	156.2	159.4
71°	149.9	152.2	150.3	149.8	151.6	154.7
72°	145.4	147.7	145.7	145.2	146.9	150.1
73°	140.9	143.1	141.1	140.5	142.3	145.4
74°	136.4	138.6	136.5	136.0	137.7	140.7
75°	132.1	134.2	132.1	131.5	133.1	136.2
76°	127.7	129.9	127.7	127.1	128.7	131.6
77°	123.6	125.5	123.4	122.6	124.3	127.3
78°	119.5	121.4	119.2	118.4	119.9	122.9
79°	115.6	117.3	115.1	114.2	115.7	118.6
80°	111.8	113.4	111.1	110.2	111.6	114.4
81°	108.1	109.6	107.3	106.3	107.7	110.5
82°	104.6	106.0	103.6	102.6	103.8	106.6
83°	101.4	102.5	100.1	99.0	100.2	102.9
84°	98.3	99.3	96.9	95.7	96.7	99.4
85°	95.4	96.2	93.7	92.5	93.5	96.0
86°	92.9	93.4	91.0	89.7	90.5	93.0
87°	90.7	91.0	88.5	87.1	87.8	90.1
88°	88.7	88.7	86.3	84.8	85.4	87.6
89°	86.9	86.8	84.3	82.8	83.3	85.3

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



TEST NUMBER: P832486

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	85.1	85.0	82.5	80.9	81.4	83.3
91°	83.5	83.3	80.8	79.2	79.6	81.4
92°	81.9	81.7	79.2	77.5	77.8	79.6
93°	80.4	80.1	77.6	75.9	76.2	77.9
94°	78.9	78.6	76.1	74.4	74.6	76.3
95°	77.4	77.1	74.7	73.0	73.1	74.7
96°	76.1	75.7	73.3	71.6	71.7	73.2
97°	74.7	74.3	72.0	70.3	70.3	71.7
98°	73.4	73.0	70.7	69.0	69.0	70.4
99°	72.1	71.8	69.5	67.7	67.7	69.0
100°	70.9	70.5	68.3	66.5	66.5	67.8
101°	69.7	69.4	67.1	65.4	65.3	66.5
102°	68.6	68.2	66.0	64.3	64.2	65.4
103°	67.5	67.1	64.8	63.2	63.1	64.2
104°	66.3	66.0	63.8	62.1	62.0	63.1
105°	65.3	64.9	62.7	61.1	61.0	62.0
106°	64.2	63.9	61.7	60.1	59.9	61.0
107°	63.2	62.9	60.8	59.1	59.0	60.0
108°	62.2	61.9	59.8	58.2	58.0	59.0
109°	61.1	60.9	58.8	57.2	57.0	58.0
110°	60.2	59.9	57.9	56.3	56.1	57.0
111°	59.2	58.9	56.9	55.4	55.1	56.1
112°	58.2	58.0	56.0	54.4	54.2	55.1
113°	57.3	57.0	55.1	53.5	53.3	54.2
114°	56.4	56.0	54.1	52.6	52.3	53.2
115°	55.5	55.1	53.2	51.7	51.4	52.3
116°	54.5	54.1	52.3	50.8	50.5	51.4
117°	53.5	53.1	51.3	49.8	49.6	50.5
118°	52.5	52.2	50.3	48.9	48.7	49.5
119°	51.5	51.2	49.4	48.0	47.7	48.6
120°	50.5	50.2	48.4	47.0	46.8	47.6
121°	49.4	49.2	47.5	46.1	45.9	46.7
122°	48.3	48.2	46.5	45.1	44.9	45.7
123°	47.3	47.1	45.5	44.2	44.0	44.7
124°	46.2	46.1	44.5	43.2	43.0	43.8
125°	45.2	45.1	43.5	42.2	42.0	42.8
126°	44.1	44.0	42.5	41.2	41.0	41.8
127°	43.0	43.0	41.5	40.3	40.1	40.8
128°	41.9	42.0	40.4	39.3	39.1	39.8
129°	40.8	40.9	39.4	38.3	38.1	38.8
130°	39.7	39.8	38.4	37.3	37.1	37.8
131°	38.6	38.8	37.4	36.2	36.1	36.8
132°	37.5	37.7	36.4	35.2	35.1	35.8
133°	36.4	36.6	35.3	34.2	34.1	34.8
134°	35.3	35.6	34.3	33.2	33.1	33.7

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



TEST NUMBER: P832486

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
135°	34.2	34.5	33.2	32.2	32.1	32.7
136°	33.1	33.4	32.2	31.2	31.1	31.7
137°	31.9	32.3	31.1	30.2	30.0	30.7
138°	30.8	31.3	30.1	29.1	29.0	29.7
139°	29.7	30.2	29.0	28.1	28.0	28.6
140°	28.6	29.1	28.0	27.0	27.0	27.6
141°	27.5	28.0	26.9	26.0	26.0	26.6
142°	26.3	26.9	25.9	25.0	25.0	25.6
143°	25.2	25.8	24.8	24.1	24.0	24.6
144°	24.1	24.8	23.8	23.1	23.0	23.6
145°	23.0	23.7	22.8	22.1	22.0	22.6
146°	21.9	22.7	21.8	21.0	21.0	21.6
147°	20.8	21.6	20.7	20.0	20.0	20.5
148°	19.7	20.5	19.7	19.0	19.0	19.5
149°	18.6	19.5	18.7	18.0	18.0	18.5
150°	17.5	18.4	17.6	17.0	17.0	17.5
151°	16.5	17.3	16.6	16.0	16.0	16.5
152°	15.4	16.3	15.6	15.0	15.0	15.5
153°	14.3	15.2	14.6	14.0	14.0	14.5
154°	13.3	14.2	13.6	13.1	13.1	13.6
155°	12.3	13.2	12.6	12.1	12.1	12.6
156°	11.3	12.2	11.6	11.2	11.2	11.7
157°	10.3	11.2	10.7	10.3	10.3	10.7
158°	9.4	10.2	9.7	9.4	9.4	9.8
159°	8.4	9.3	8.8	8.5	8.5	8.9
160°	7.5	8.4	7.9	7.6	7.7	8.1
161°	6.7	7.4	7.1	6.8	6.8	7.2
162°	5.9	6.6	6.2	6.0	6.0	6.4
163°	5.1	5.7	5.4	5.2	5.3	5.6
164°	4.3	4.9	4.7	4.5	4.5	4.9
165°	3.6	4.2	3.9	3.7	3.8	4.1
166°	2.9	3.4	3.2	3.1	3.2	3.5
167°	2.3	2.8	2.6	2.5	2.6	2.8
168°	1.8	2.2	2.1	2.0	2.1	2.3
169°	1.3	1.7	1.6	1.5	1.6	1.8
170°	0.9	1.2	1.1	1.1	1.2	1.3
171°	0.6	0.8	0.8	0.8	0.8	1.0
172°	0.3	0.5	0.5	0.5	0.5	0.6
173°	0.2	0.3	0.3	0.3	0.3	0.4
174°	0.1	0.1	0.2	0.2	0.2	0.3
175°	0.1	0.1	0.1	0.1	0.2	0.2
176°	0.1	0.1	0.1	0.1	0.1	0.2
177°	0.0	0.0	0.0	0.1	0.1	0.1
178°	0.0	0.0	0.0	0.0	0.1	0.1
179°	0.0	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report



TEST NUMBER: P832486
CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-930

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
180°	0.0	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
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

HALO

Report Number: SP1-2405-083-2

Test Date: 05/22/2024

Luminaire Tested: 7ORB15FS-1PK-ED-CA-3000K

Data in this report applies to families of products 7ORB15FS-1PK-ED-CA-3000K.

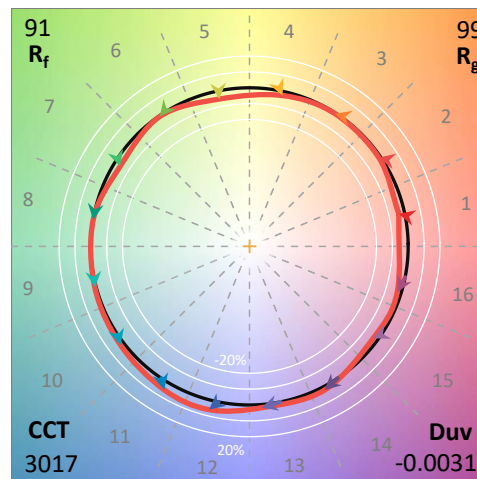
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2405-083-2
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 05/22/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: HALO
 Catalog Number: **7ORB15FS-1PK-ED-CA-3000K**
 Description: Halo Spin Light 3000K

Spectral Parameters

CCT (K): 3017
 CIE u': 0.2510
 CIE v': 0.5167
 Duv: -0.0031
 CIE x: 0.4313
 CIE y: 0.3946
 CIE z: 0.1741
 Peak Wavelength (nm): 632
 Dominant Wavelength (nm): 583
 Purity: 48.3
 Rf: 91.1
 Rg: 98.7

CRI (Ra):	95.2		
R1:	98.6	R9:	76.8
R2:	97.6	R10:	97.7
R3:	98.1	R11:	98.7
R4:	97.6	R12:	83.2
R5:	97.9	R13:	98.6
R6:	92.3	R14:	99.1
R7:	91.5		
R8:	88.5		



Test Conditions

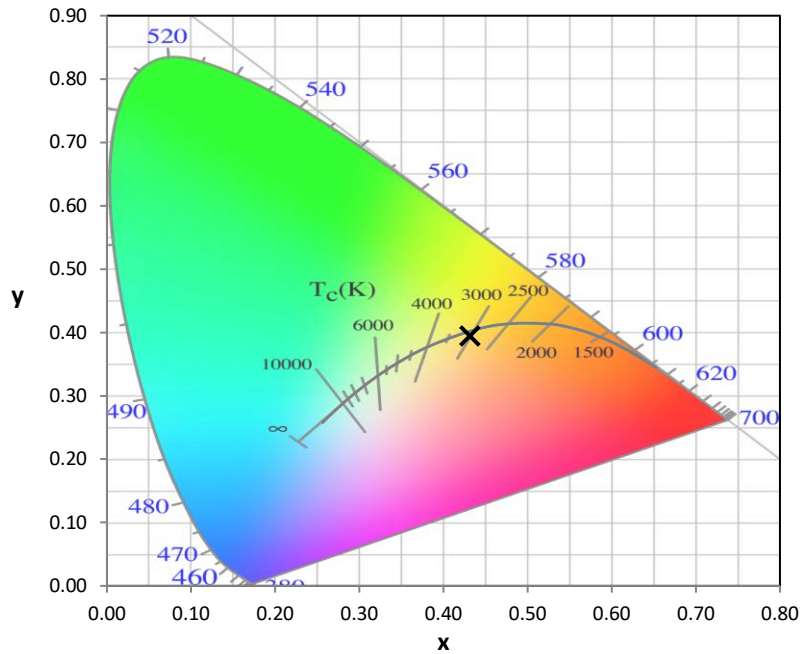
Stabilization Time: 12M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.0/42%
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2405-083-2

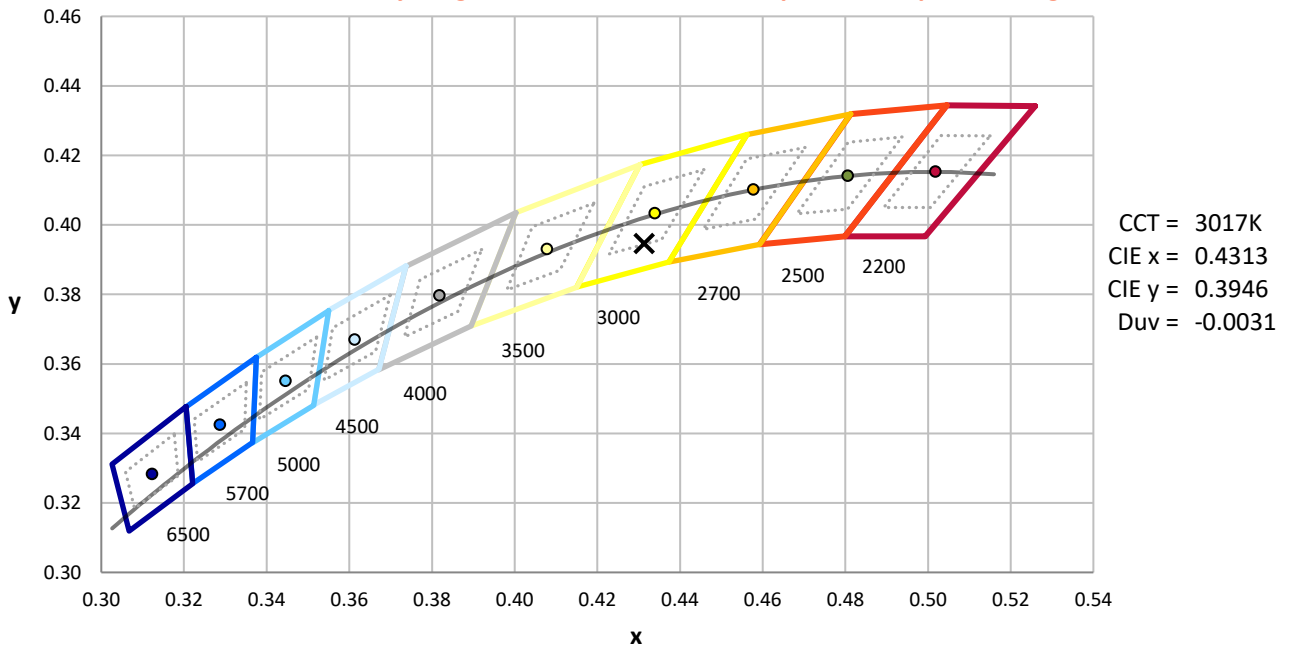
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	2/12/2024	8/12/2024
Power Meter	XITRON 2801 IN0071	10/23/2023	10/23/2024
AC Power Source	CHROMA 61603 IN0063	10/24/2023	10/24/2024
DC Power Source	AGILENT E3634A IN0208	10/24/2023	10/24/2024
Sphere Thermometer	ONSET IN0085	10/24/2023	10/24/2024
Room Thermometer	ONSET IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2405-083-2

CIE 1931 Chromaticity Diagram



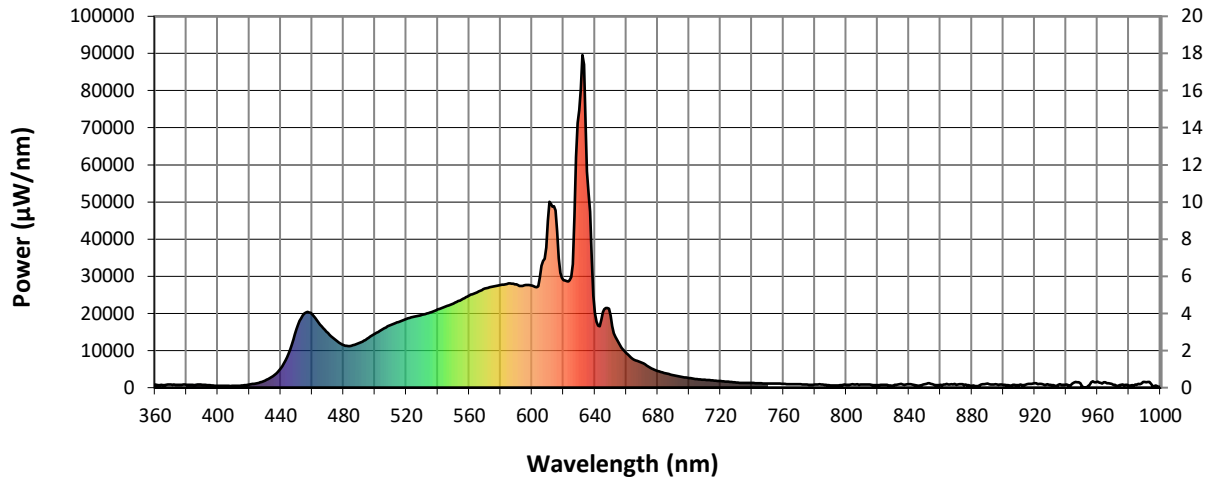
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2405-083-2

Photopic Flux vs. Wavelength

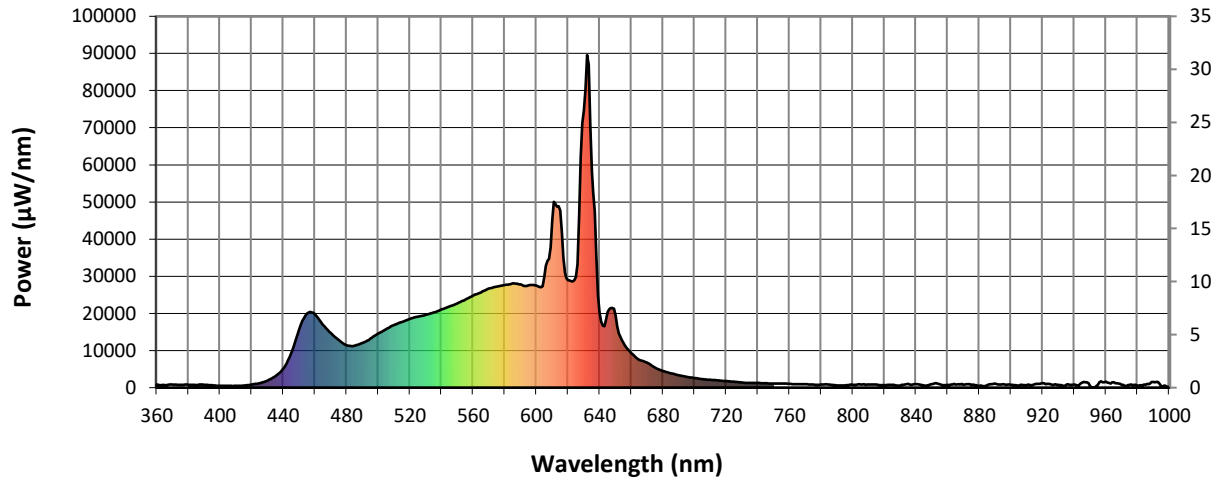


#####

λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)
360	853	NR	490	12015	NR	620	28966	NR	750	1100	NR	880	541	NR
365	695	NR	495	13145	NR	625	29765	NR	755	1117	NR	885	649	NR
370	810	NR	500	14512	NR	630	74655	NR	760	991	NR	890	1083	NR
375	789	NR	505	15778	NR	635	58248	NR	765	916	NR	895	897	NR
380	761	NR	510	16855	NR	640	20045	NR	770	952	NR	900	736	NR
385	681	NR	515	17673	NR	645	20314	NR	775	807	NR	905	480	NR
390	797	NR	520	18506	NR	650	19427	NR	780	825	NR	910	697	NR
395	645	NR	525	19146	NR	655	12096	NR	785	821	NR	915	958	NR
400	493	NR	530	19599	NR	660	9306	NR	790	575	NR	920	1162	NR
405	473	NR	535	20195	NR	665	7489	NR	795	597	NR	925	941	NR
410	467	NR	540	21060	NR	670	6735	NR	800	770	NR	930	767	NR
415	571	NR	545	21863	NR	675	5405	NR	805	841	NR	935	759	NR
420	835	NR	550	22641	NR	680	4497	NR	810	823	NR	940	804	NR
425	1217	NR	555	23708	NR	685	3844	NR	815	813	NR	945	1382	NR
430	1910	NR	560	24820	NR	690	3385	NR	820	652	NR	950	429	NR
435	3083	NR	565	25647	NR	695	2904	NR	825	737	NR	955	755	NR
440	5150	NR	570	26654	NR	700	2571	NR	830	623	NR	960	1610	NR
445	9175	NR	575	27172	NR	705	2269	NR	835	1003	NR	965	1472	NR
450	15660	NR	580	27643	NR	710	2104	NR	840	933	NR	970	787	NR
455	19956	NR	585	28080	NR	715	1931	NR	845	620	NR	975	744	NR
460	19839	NR	590	27796	NR	720	1752	NR	850	896	NR	980	424	NR
465	16981	NR	595	27547	NR	725	1607	NR	855	927	NR	985	801	NR
470	14684	NR	600	27482	NR	730	1397	NR	860	725	NR	990	1549	NR
475	12789	NR	605	29670	NR	735	1236	NR	865	832	NR	995	399	NR
480	11440	NR	610	45001	NR	740	1275	NR	870	744	NR	1000	234	NR
485	11277	NR	615	47743	NR	745	1184	NR	875	685	NR			

REPORT NUMBER: SP1-2405-083-2

Scotopic Flux vs. Wavelength



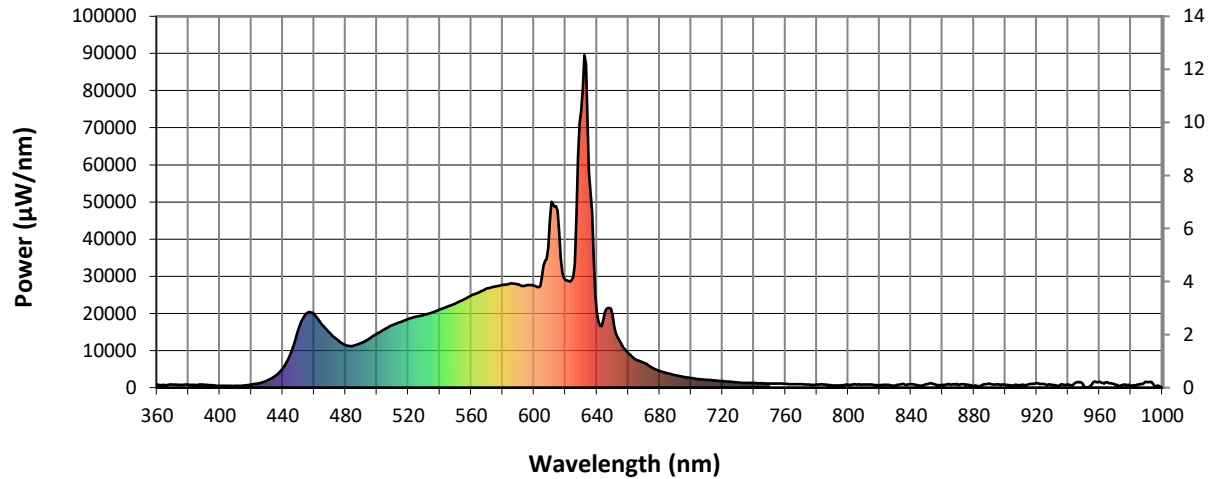
Scotopic Lumens: 2722.8

S/P: 1.51

λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)
360	853	NR	490	12015	NR	620	28966	NR	750	1100	NR	880	541	NR
365	695	NR	495	13145	NR	625	29765	NR	755	1117	NR	885	649	NR
370	810	NR	500	14512	NR	630	74655	NR	760	991	NR	890	1083	NR
375	789	NR	505	15778	NR	635	58248	NR	765	916	NR	895	897	NR
380	761	NR	510	16855	NR	640	20045	NR	770	952	NR	900	736	NR
385	681	NR	515	17673	NR	645	20314	NR	775	807	NR	905	480	NR
390	797	NR	520	18506	NR	650	19427	NR	780	825	NR	910	697	NR
395	645	NR	525	19146	NR	655	12096	NR	785	821	NR	915	958	NR
400	493	NR	530	19599	NR	660	9306	NR	790	575	NR	920	1162	NR
405	473	NR	535	20195	NR	665	7489	NR	795	597	NR	925	941	NR
410	467	NR	540	21060	NR	670	6735	NR	800	770	NR	930	767	NR
415	571	NR	545	21863	NR	675	5405	NR	805	841	NR	935	759	NR
420	835	NR	550	22641	NR	680	4497	NR	810	823	NR	940	804	NR
425	1217	NR	555	23708	NR	685	3844	NR	815	813	NR	945	1382	NR
430	1910	NR	560	24820	NR	690	3385	NR	820	652	NR	950	429	NR
435	3083	NR	565	25647	NR	695	2904	NR	825	737	NR	955	755	NR
440	5150	NR	570	26654	NR	700	2571	NR	830	623	NR	960	1610	NR
445	9175	NR	575	27172	NR	705	2269	NR	835	1003	NR	965	1472	NR
450	15660	NR	580	27643	NR	710	2104	NR	840	933	NR	970	787	NR
455	19956	NR	585	28080	NR	715	1931	NR	845	620	NR	975	744	NR
460	19839	NR	590	27796	NR	720	1752	NR	850	896	NR	980	424	NR
465	16981	NR	595	27547	NR	725	1607	NR	855	927	NR	985	801	NR
470	14684	NR	600	27482	NR	730	1397	NR	860	725	NR	990	1549	NR
475	12789	NR	605	29670	NR	735	1236	NR	865	832	NR	995	399	NR
480	11440	NR	610	45001	NR	740	1275	NR	870	744	NR	1000	234	NR
485	11277	NR	615	47743	NR	745	1184	NR	875	685	NR			

REPORT NUMBER: SP1-2405-083-2

Melanopic Flux vs. Wavelength



Melanopic Lumens: 1087.7 M/P: 0.6

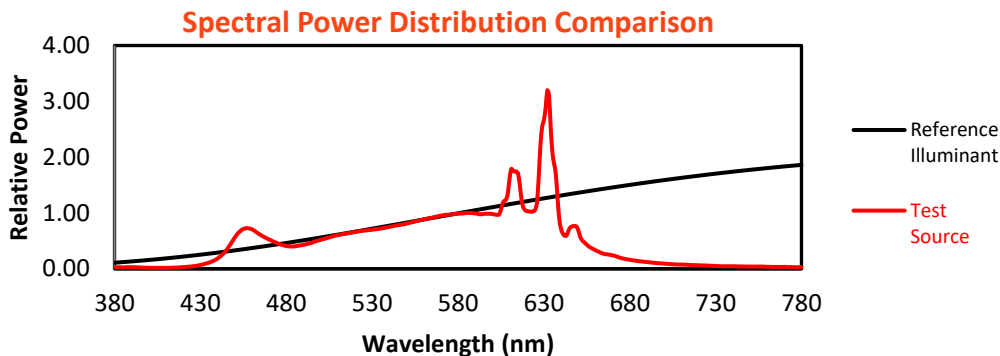
λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)
360	853	NR	490	12015	NR	620	28966	NR	750	1100	NR	880	541	NR
365	695	NR	495	13145	NR	625	29765	NR	755	1117	NR	885	649	NR
370	810	NR	500	14512	NR	630	74655	NR	760	991	NR	890	1083	NR
375	789	NR	505	15778	NR	635	58248	NR	765	916	NR	895	897	NR
380	761	NR	510	16855	NR	640	20045	NR	770	952	NR	900	736	NR
385	681	NR	515	17673	NR	645	20314	NR	775	807	NR	905	480	NR
390	797	NR	520	18506	NR	650	19427	NR	780	825	NR	910	697	NR
395	645	NR	525	19146	NR	655	12096	NR	785	821	NR	915	958	NR
400	493	NR	530	19599	NR	660	9306	NR	790	575	NR	920	1162	NR
405	473	NR	535	20195	NR	665	7489	NR	795	597	NR	925	941	NR
410	467	NR	540	21060	NR	670	6735	NR	800	770	NR	930	767	NR
415	571	NR	545	21863	NR	675	5405	NR	805	841	NR	935	759	NR
420	835	NR	550	22641	NR	680	4497	NR	810	823	NR	940	804	NR
425	1217	NR	555	23708	NR	685	3844	NR	815	813	NR	945	1382	NR
430	1910	NR	560	24820	NR	690	3385	NR	820	652	NR	950	429	NR
435	3083	NR	565	25647	NR	695	2904	NR	825	737	NR	955	755	NR
440	5150	NR	570	26654	NR	700	2571	NR	830	623	NR	960	1610	NR
445	9175	NR	575	27172	NR	705	2269	NR	835	1003	NR	965	1472	NR
450	15660	NR	580	27643	NR	710	2104	NR	840	933	NR	970	787	NR
455	19956	NR	585	28080	NR	715	1931	NR	845	620	NR	975	744	NR
460	19839	NR	590	27796	NR	720	1752	NR	850	896	NR	980	424	NR
465	16981	NR	595	27547	NR	725	1607	NR	855	927	NR	985	801	NR
470	14684	NR	600	27482	NR	730	1397	NR	860	725	NR	990	1549	NR
475	12789	NR	605	29670	NR	735	1236	NR	865	832	NR	995	399	NR
480	11440	NR	610	45001	NR	740	1275	NR	870	744	NR	1000	234	NR
485	11277	NR	615	47743	NR	745	1184	NR	875	685	NR			

REPORT NUMBER: SP1-2405-083-2

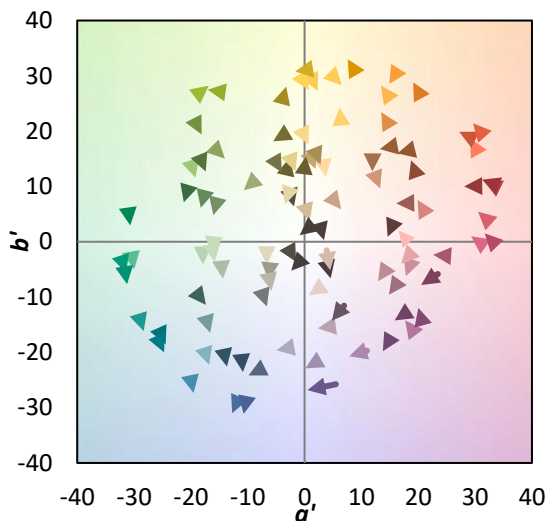
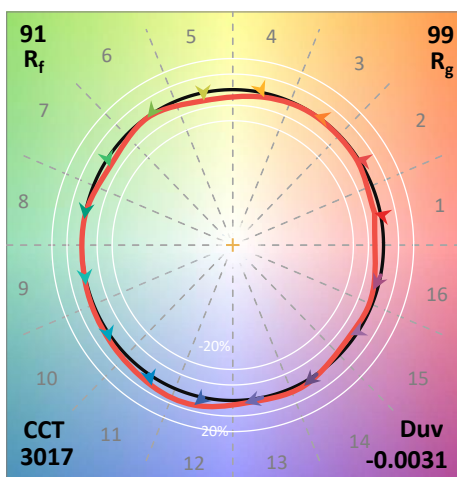
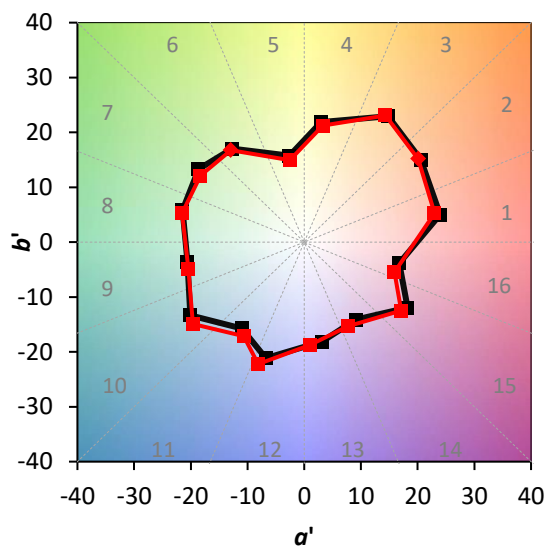
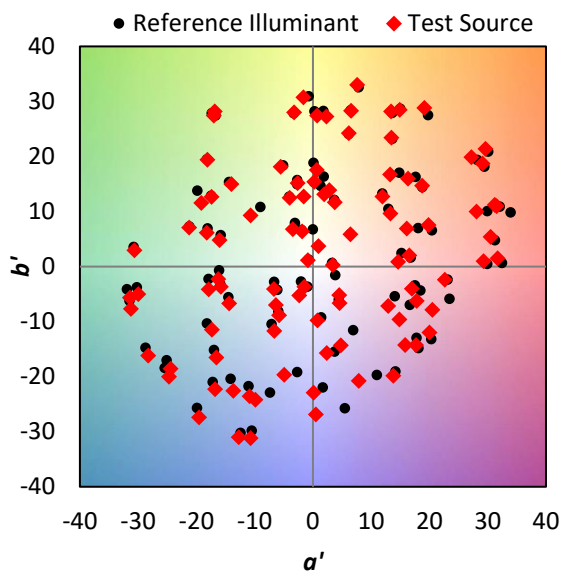
TM-30-18

Summary

$R_f = 91.1$
 $R_g = 98.7$
 CIE $R_a = 95.2$
 $R_9 = 76.8$



Color Vector Graphics

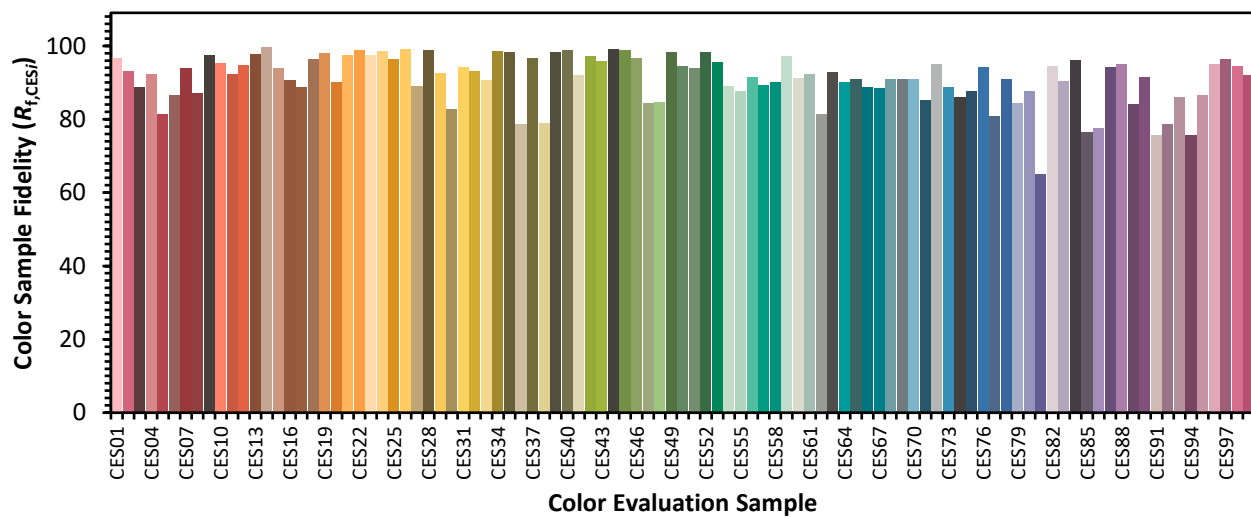


REPORT NUMBER: SP1-2405-083-2

TM-30-18

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

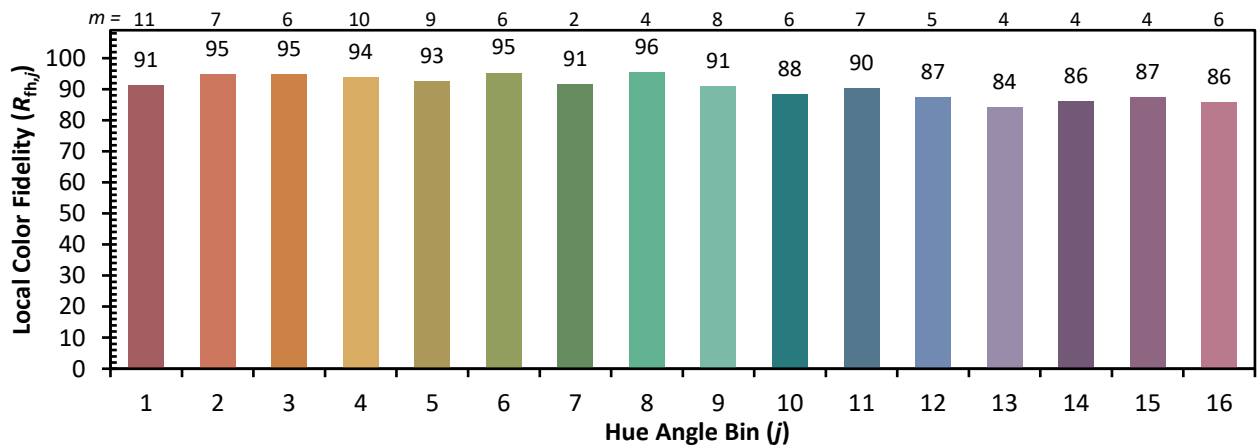
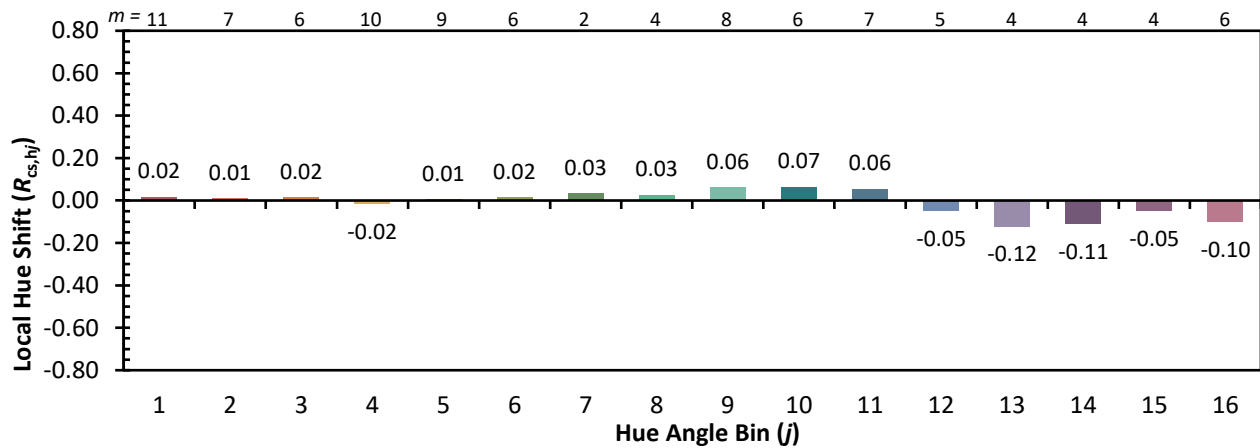
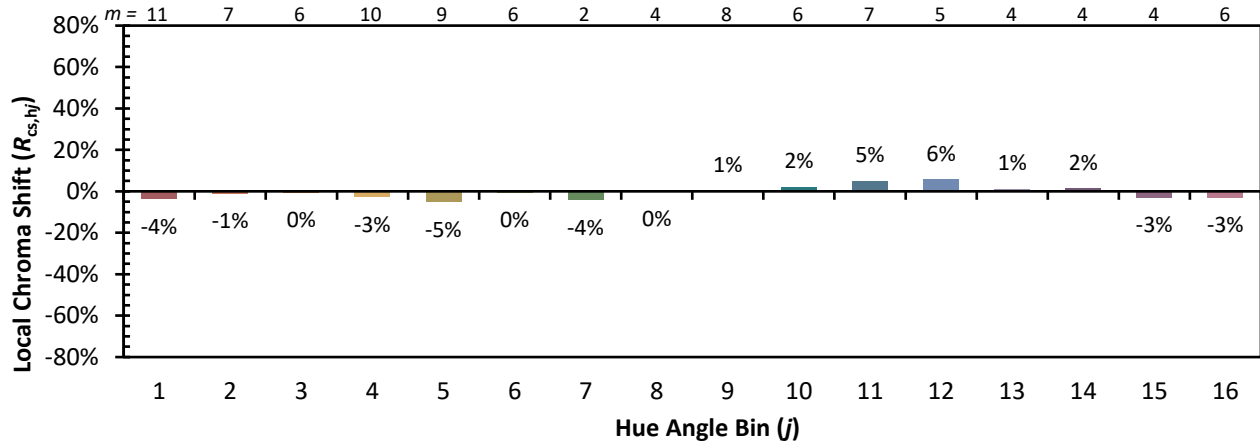
CES01 = 86	CES26 = 99	CES51 = 94	CES76 = 94
CES02 = 63	CES27 = 89	CES52 = 98	CES77 = 81
CES03 = 32	CES28 = 99	CES53 = 96	CES78 = 91
CES04 = 70	CES29 = 93	CES54 = 89	CES79 = 84
CES05 = 51	CES30 = 83	CES55 = 88	CES80 = 88
CES06 = 51	CES31 = 94	CES56 = 92	CES81 = 65
CES07 = 44	CES32 = 93	CES57 = 89	CES82 = 94
CES08 = 42	CES33 = 91	CES58 = 90	CES83 = 90
CES09 = 29	CES34 = 99	CES59 = 97	CES84 = 96
CES10 = 76	CES35 = 98	CES60 = 91	CES85 = 77
CES11 = 59	CES36 = 79	CES61 = 92	CES86 = 78
CES12 = 65	CES37 = 97	CES62 = 81	CES87 = 94
CES13 = 44	CES38 = 79	CES63 = 93	CES88 = 95
CES14 = 74	CES39 = 98	CES64 = 90	CES89 = 84
CES15 = 72	CES40 = 99	CES65 = 91	CES90 = 91
CES16 = 48	CES41 = 92	CES66 = 89	CES91 = 76
CES17 = 50	CES42 = 97	CES67 = 88	CES92 = 79
CES18 = 57	CES43 = 96	CES68 = 91	CES93 = 86
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 76
CES20 = 67	CES45 = 99	CES70 = 91	CES95 = 87
CES21 = 86	CES46 = 97	CES71 = 85	CES96 = 95
CES22 = 79	CES47 = 84	CES72 = 95	CES97 = 96
CES23 = 92	CES48 = 85	CES73 = 89	CES98 = 94
CES24 = 90	CES49 = 98	CES74 = 86	CES99 = 92
CES25 = 72	CES50 = 95	CES75 = 88	



REPORT NUMBER: SP1-2405-083-2

TM-30-18

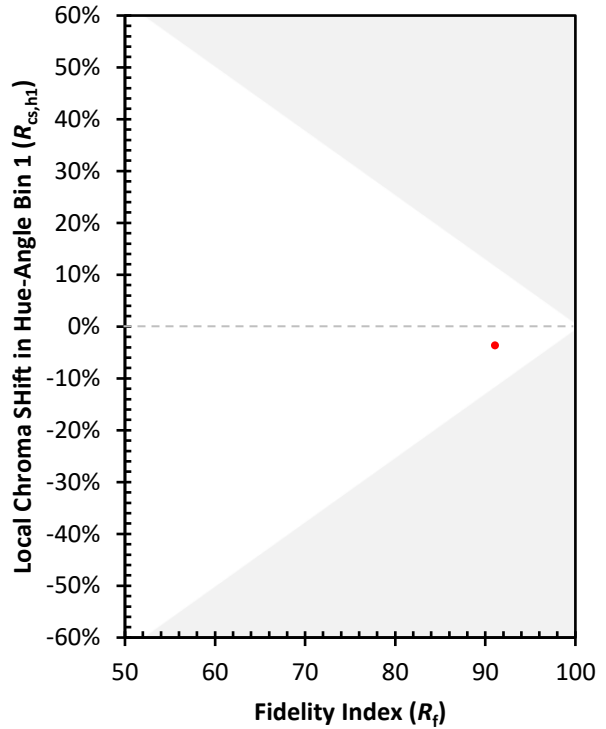
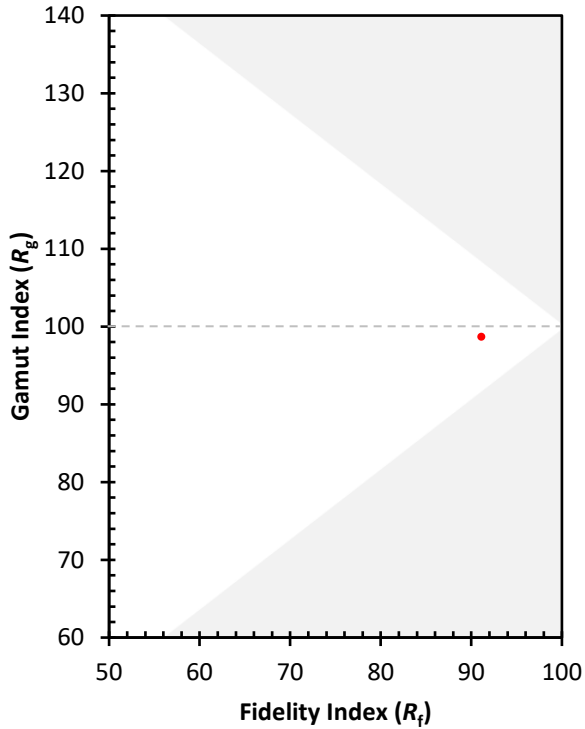
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2405-083-2

TM-30-18

Measure Comparisons



(END OF REPORT)