

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: P832485

Luminaire Tested: **7ORB15FS-1PK-ED-CA-927**

Issue Date: 05/08/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P832485  
Test Lab: Intertek  
Issue Date: 05/08/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: 7ORB15FS-1PK-ED-CA-927  
Description: 7 inch 90 CRI COLOR SELECTABLE SPIN LIGHT WITH E26 BASE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

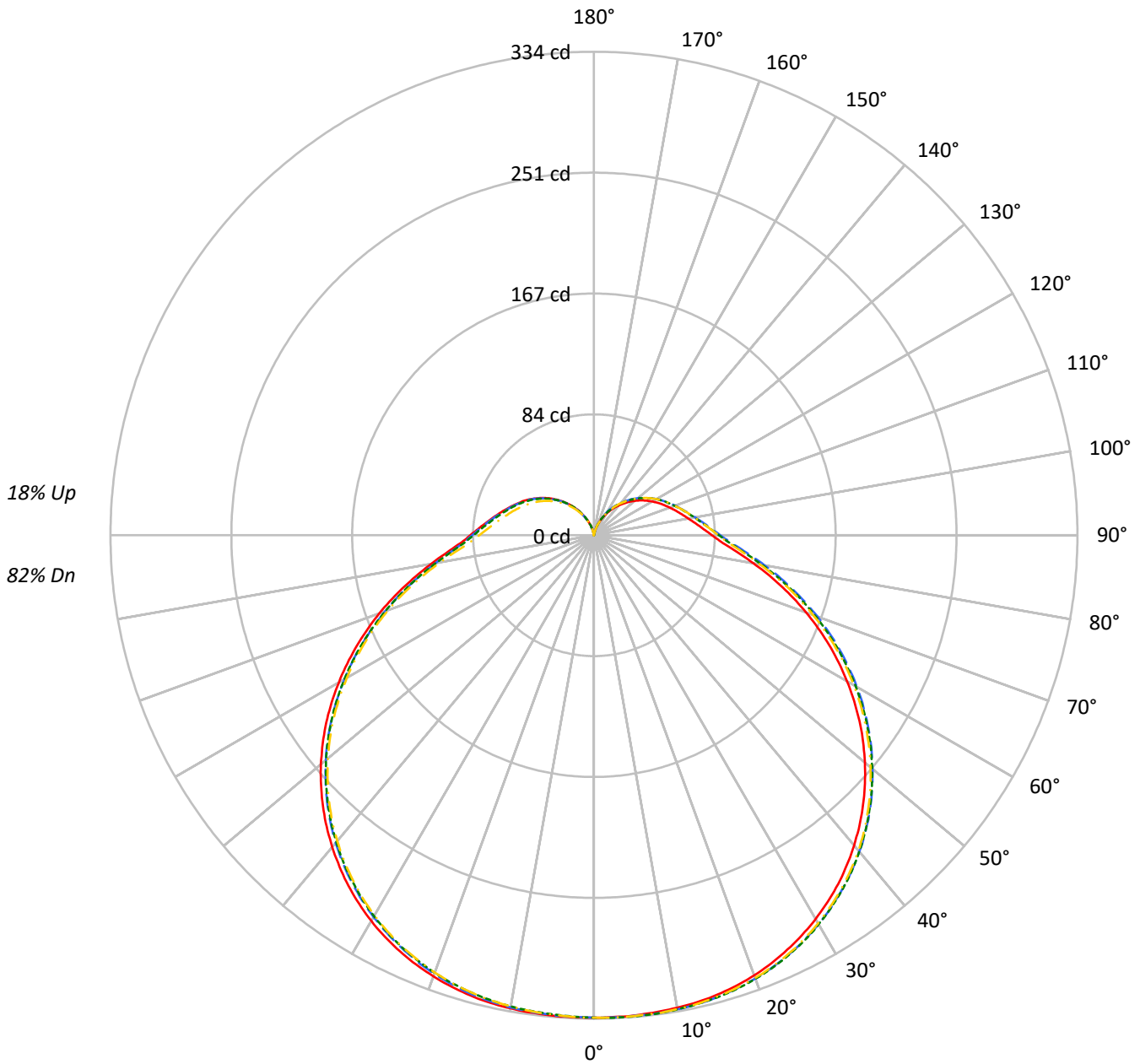
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1580.1 lumens  
Efficiency: N/A  
Efficacy: 100.0 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): 15.8  
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: P832485  
CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-927

### Luminous Intensity Polar Plot



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



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**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°	12689	12689	12689	12689
5°	12157	12183	12161	12132
10°	11715	11757	11733	11683
15°	11343	11398	11360	11287
20°	10988	11076	11012	10924
25°	10641	10759	10682	10577
30°	10304	10445	10351	10227
35°	9966	10135	10017	9875
40°	9618	9808	9670	9519
45°	9251	9466	9311	9153
50°	8864	9107	8933	8770
55°	8455	8712	8523	8345
60°	8015	8285	8075	7900
65°	7551	7834	7615	7429
70°	7061	7364	7138	6952
75°	6575	6896	6669	6481
80°	6120	6448	6251	6065
85°	5806	6140	5992	5819



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.7	2.0
10°-20°	93.0	5.9
20°-30°	146.2	9.2
30°-40°	184.8	11.7
40°-50°	204.0	12.9
50°-60°	201.5	12.8
60°-70°	178.9	11.3
70°-80°	142.8	9.0
80°-90°	106.0	6.7
90°-100°	83.1	5.3
100°-110°	67.3	4.3
110°-120°	53.3	3.4
120°-130°	39.5	2.5
130°-140°	26.1	1.6
140°-150°	14.6	0.9
150°-160°	6.1	0.4
160°-170°	1.3	0.1
170°-180°	0.0	0.0
0°-30°	270.9	17.1
0°-40°	455.7	28.8
0°-60°	861.2	54.5
0°-90°	1288.8	81.6
90°-120°	203.7	12.9
90°-150°	283.8	18.0
90°-180°	291.0	18.4
0°-180°	1580.1	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	333	333	333	333	333	
5°	333	334	333	332	333	32
15°	329	330	329	327	329	93
25°	316	320	317	314	316	146
35°	294	299	296	291	294	184
45°	263	269	265	260	263	203
55°	224	231	226	221	224	200
65°	179	186	181	176	179	177
75°	133	140	135	131	133	141
85°	94	99	97	94	94	80
90°	82	86	85	83	82	45
95°	73	78	77	75	73	58
105°	61	65	65	64	61	64
115°	51	55	55	54	51	51
125°	42	45	45	44	42	38
135°	32	34	34	34	32	25
145°	22	23	23	23	22	14
155°	12	13	13	13	12	6
165°	4	4	4	4	4	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	333.3	333.3	333.3	333.3	333.3	333.3	333.3	333.3	333.3	333.3	333.3
1°	333.3	333.4	333.3	333.2	333.4	333.3	333.5	333.4	333.3	333.4	333.1
2°	333.2	333.5	333.4	333.2	333.6	333.5	333.5	333.3	333.3	333.3	333.0
3°	333.1	333.4	333.4	333.2	333.6	333.5	333.4	333.4	333.2	333.4	332.8
4°	333.1	333.4	333.3	333.3	333.5	333.5	333.4	333.3	333.3	333.1	332.8
5°	332.9	333.2	333.1	333.2	333.6	333.4	333.3	333.3	333.0	332.9	332.7
6°	332.5	333.0	333.3	333.1	333.5	333.4	333.0	333.2	332.8	332.8	332.4
7°	332.4	333.0	333.3	333.1	333.4	333.4	333.0	333.2	332.7	332.7	332.2
8°	332.1	332.8	333.1	333.0	333.2	333.2	333.1	332.9	332.6	332.3	331.8
9°	331.8	332.6	332.8	332.9	333.0	333.1	332.7	332.7	332.3	332.1	331.6
10°	331.4	332.1	332.6	332.7	332.6	332.9	332.4	332.6	331.9	331.6	331.2
11°	331.0	331.9	332.4	332.4	332.2	332.6	332.2	332.3	331.6	331.2	330.7
12°	330.6	331.5	331.9	332.2	331.9	332.4	331.7	331.8	331.1	330.7	330.1
13°	330.0	330.9	331.6	331.8	331.4	332.0	331.2	331.3	330.6	330.1	329.5
14°	329.4	330.2	331.0	331.3	330.9	331.5	330.6	330.7	330.0	329.5	328.8
15°	328.7	329.6	330.3	330.7	330.3	331.0	329.9	330.0	329.2	328.7	328.0
16°	327.7	328.8	329.5	330.0	329.7	330.4	329.2	329.3	328.4	327.9	327.1
17°	326.9	327.9	328.8	329.2	329.0	329.6	328.4	328.4	327.5	326.8	326.0
18°	325.9	327.0	327.8	328.4	328.1	328.7	327.4	327.5	326.5	325.9	324.9
19°	324.8	326.0	326.9	327.5	327.2	327.8	326.6	326.5	325.5	324.7	323.7
20°	323.6	324.8	325.9	326.4	326.2	326.7	325.5	325.4	324.3	323.6	322.4
21°	322.3	323.6	324.7	325.4	325.0	325.5	324.4	324.2	323.0	322.2	321.1
22°	320.8	322.4	323.6	324.2	323.8	324.3	323.1	322.9	321.7	320.9	319.7
23°	319.4	321.0	322.2	323.1	322.6	323.1	321.7	321.5	320.3	319.3	317.9
24°	317.7	319.4	320.8	321.8	321.1	321.5	320.3	320.0	318.8	317.5	316.2
25°	316.0	317.8	319.3	320.2	319.5	320.1	318.7	318.5	317.2	315.9	314.5
26°	314.2	316.1	317.7	318.7	317.9	318.3	317.2	316.7	315.5	314.1	312.8
27°	312.4	314.3	316.1	317.1	316.3	316.6	315.3	315.0	313.5	312.3	310.8
28°	310.3	312.6	314.2	315.3	314.5	314.9	313.5	313.1	311.8	310.4	308.8
29°	308.4	310.5	312.3	313.6	312.6	312.8	311.7	311.1	309.8	308.3	306.6
30°	306.2	308.4	310.3	311.6	310.4	310.9	309.6	308.9	307.6	306.2	304.5
31°	303.9	306.2	308.2	309.5	308.4	308.7	307.5	306.8	305.4	303.9	302.2
32°	301.6	304.0	306.1	307.3	306.2	306.5	305.2	304.6	303.1	301.7	299.8
33°	299.2	301.6	303.7	305.2	303.8	304.2	303.0	302.3	300.7	299.2	297.3
34°	296.8	299.2	301.3	302.8	301.5	301.7	300.6	299.7	298.2	296.6	294.7
35°	294.1	296.7	298.9	300.5	299.1	299.2	298.0	297.2	295.6	294.0	292.2
36°	291.4	294.1	296.5	298.1	296.5	296.6	295.5	294.5	292.9	291.3	289.4
37°	288.5	291.3	293.8	295.4	293.8	293.9	292.8	291.8	290.1	288.4	286.5
38°	285.7	288.5	291.0	292.7	291.0	291.2	290.0	288.9	287.2	285.6	283.7
39°	282.7	285.6	288.3	289.9	288.2	288.3	287.1	285.9	284.4	282.5	280.6
40°	279.7	282.6	285.3	287.1	285.2	285.3	284.3	283.0	281.2	279.4	277.5
41°	276.4	279.5	282.4	284.0	282.2	282.2	281.1	279.9	278.0	276.2	274.4
42°	273.3	276.4	279.3	281.2	279.0	279.2	278.1	276.8	274.9	273.0	271.1
43°	269.9	273.1	276.0	278.0	275.8	275.9	274.7	273.4	271.6	269.6	267.7
44°	266.5	269.7	272.9	274.8	272.5	272.6	271.4	270.0	268.2	266.2	264.2

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	263.0	266.3	269.4	271.5	269.1	269.2	267.8	266.6	264.7	262.6	260.7
46°	259.4	262.8	265.9	268.1	265.6	265.7	264.4	263.1	261.3	259.1	257.0
47°	255.8	259.2	262.4	264.6	262.0	262.1	260.8	259.5	257.5	255.3	253.3
48°	252.0	255.6	258.8	261.1	258.4	258.5	257.1	255.7	253.8	251.6	249.4
49°	248.2	251.8	255.1	257.4	254.7	254.7	253.3	252.0	250.2	247.8	245.7
50°	244.3	248.0	251.3	253.7	251.0	250.8	249.5	248.1	246.2	243.9	241.7
51°	240.4	244.1	247.4	249.8	247.0	247.0	245.5	244.2	242.1	239.8	237.9
52°	236.3	240.1	243.6	245.8	243.1	243.0	241.6	240.2	238.2	235.8	233.7
53°	232.4	236.1	239.5	241.9	239.0	238.9	237.4	236.2	234.1	231.6	229.6
54°	228.1	232.0	235.4	237.8	234.9	234.7	233.2	232.0	229.9	227.5	225.4
55°	223.9	227.8	231.3	233.7	230.7	230.6	229.1	227.6	225.7	223.2	221.1
56°	219.6	223.6	227.2	229.6	226.5	226.4	224.8	223.4	221.4	219.0	216.8
57°	215.3	219.3	222.8	225.4	222.1	222.1	220.5	219.0	217.0	214.6	212.4
58°	210.9	214.9	218.7	221.1	217.7	217.7	216.2	214.6	212.6	210.2	208.0
59°	206.5	210.5	214.2	216.8	213.2	213.3	211.7	210.1	208.2	205.8	203.5
60°	202.0	206.1	209.8	212.4	208.8	208.8	207.2	205.7	203.5	201.3	199.0
61°	197.5	201.6	205.5	208.1	204.2	204.3	202.8	201.2	199.0	196.8	194.6
62°	193.0	197.1	200.9	203.5	199.6	199.7	198.2	196.6	194.4	192.2	190.1
63°	188.4	192.6	196.5	199.1	195.1	195.1	193.7	192.0	189.9	187.7	185.5
64°	183.8	188.0	191.9	194.5	190.4	190.4	189.1	187.4	185.2	183.1	180.9
65°	179.2	183.4	187.2	189.9	185.9	185.8	184.4	182.8	180.7	178.4	176.3
66°	174.6	178.8	182.8	185.3	181.2	181.2	179.8	178.1	176.0	173.9	171.7
67°	169.9	174.1	178.1	180.6	176.6	176.6	175.2	173.5	171.4	169.2	167.1
68°	165.3	169.5	173.5	176.0	172.0	171.9	170.5	168.9	166.9	164.7	162.6
69°	160.5	164.9	168.9	171.3	167.3	167.2	165.9	164.3	162.3	160.0	157.9
70°	155.9	160.2	164.2	166.7	162.6	162.5	161.1	159.5	157.6	155.5	153.4
71°	151.3	155.6	159.6	162.1	158.0	157.9	156.5	155.0	153.1	151.0	148.9
72°	146.8	151.0	155.0	157.6	153.4	153.2	151.8	150.4	148.5	146.5	144.4
73°	142.2	146.5	150.4	153.0	148.8	148.6	147.3	145.9	144.0	142.0	140.0
74°	137.7	142.0	145.8	148.3	144.3	144.0	142.7	141.3	139.5	137.5	135.7
75°	133.2	137.5	141.4	143.8	139.7	139.5	138.3	136.8	135.1	133.2	131.3
76°	128.8	133.0	136.9	139.3	135.1	135.0	133.7	132.4	130.7	128.9	127.1
77°	124.5	128.7	132.5	134.9	130.8	130.5	129.3	128.1	126.5	124.7	122.9
78°	120.2	124.3	128.2	130.6	126.3	126.2	125.0	123.8	122.3	120.6	118.9
79°	116.0	120.1	123.9	126.2	122.1	121.9	120.8	119.6	118.2	116.5	114.9
80°	111.9	116.0	119.7	122.0	117.9	117.7	116.7	115.6	114.3	112.8	111.2
81°	108.1	112.0	115.7	117.8	113.8	113.7	112.7	111.7	110.5	109.1	107.5
82°	104.3	108.1	111.7	113.8	109.9	109.8	108.9	108.0	106.8	105.4	104.0
83°	100.6	104.4	107.9	110.0	106.2	106.0	105.2	104.4	103.3	102.0	100.7
84°	97.2	100.9	104.3	106.2	102.6	102.5	101.7	101.0	100.0	98.8	97.5
85°	93.9	97.5	100.9	102.7	99.3	99.2	98.5	97.8	96.9	95.9	94.7
86°	90.9	94.4	97.6	99.4	96.1	96.0	95.3	94.9	94.1	93.1	92.1
87°	88.1	91.5	94.6	96.3	93.2	93.2	92.6	92.2	91.5	90.8	89.8
88°	85.7	88.9	91.9	93.4	90.7	90.6	90.1	89.8	89.2	88.6	87.7
89°	83.5	86.6	89.4	90.8	88.4	88.3	87.9	87.7	87.2	86.6	85.9

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	81.5	84.5	87.3	88.5	86.3	86.3	86.0	85.8	85.4	84.9	84.1
91°	79.7	82.6	85.3	86.5	84.4	84.4	84.1	84.0	83.6	83.1	82.4
92°	77.9	80.8	83.4	84.6	82.6	82.6	82.4	82.3	81.9	81.4	80.9
93°	76.2	79.0	81.6	82.8	80.8	80.9	80.7	80.6	80.3	79.9	79.3
94°	74.6	77.4	79.9	81.0	79.2	79.2	79.1	79.0	78.8	78.4	77.9
95°	73.1	75.8	78.3	79.4	77.6	77.7	77.5	77.5	77.3	76.9	76.4
96°	71.6	74.2	76.7	77.7	76.1	76.1	76.0	76.0	75.8	75.5	75.1
97°	70.2	72.7	75.2	76.2	74.6	74.7	74.6	74.6	74.5	74.2	73.7
98°	68.9	71.3	73.7	74.7	73.2	73.3	73.2	73.3	73.1	72.8	72.4
99°	67.6	70.0	72.3	73.3	71.8	71.9	71.9	72.0	71.9	71.5	71.2
100°	66.3	68.7	71.0	71.9	70.5	70.6	70.6	70.7	70.6	70.3	70.0
101°	65.1	67.4	69.7	70.7	69.3	69.3	69.3	69.5	69.4	69.1	68.7
102°	64.0	66.2	68.5	69.4	68.0	68.1	68.1	68.3	68.2	68.0	67.6
103°	62.8	65.1	67.2	68.1	66.8	67.0	67.0	67.1	67.1	66.8	66.5
104°	61.7	63.9	66.1	66.9	65.7	65.8	65.8	65.9	66.0	65.7	65.4
105°	60.7	62.7	64.9	65.8	64.6	64.7	64.7	64.8	64.9	64.6	64.3
106°	59.7	61.7	63.8	64.7	63.5	63.6	63.6	63.8	63.8	63.6	63.2
107°	58.7	60.7	62.8	63.6	62.4	62.5	62.6	62.7	62.7	62.5	62.2
108°	57.7	59.7	61.7	62.5	61.4	61.5	61.5	61.6	61.7	61.5	61.2
109°	56.7	58.7	60.7	61.5	60.3	60.5	60.5	60.6	60.7	60.5	60.2
110°	55.8	57.7	59.7	60.4	59.3	59.5	59.5	59.6	59.7	59.5	59.2
111°	54.9	56.7	58.7	59.4	58.3	58.5	58.5	58.6	58.7	58.5	58.2
112°	53.9	55.8	57.7	58.4	57.4	57.5	57.5	57.6	57.7	57.5	57.3
113°	53.0	54.8	56.7	57.5	56.4	56.6	56.6	56.7	56.7	56.5	56.3
114°	52.1	53.9	55.8	56.5	55.5	55.7	55.7	55.8	55.8	55.7	55.5
115°	51.2	52.9	54.8	55.5	54.7	54.8	54.8	54.9	55.0	54.8	54.7
116°	50.3	52.0	53.8	54.6	53.8	53.9	53.9	54.0	54.1	53.9	53.7
117°	49.4	51.1	52.9	53.6	52.8	52.9	52.9	53.0	53.1	52.9	52.7
118°	48.4	50.1	51.9	52.6	51.9	51.9	51.9	52.0	52.0	51.9	51.7
119°	47.5	49.2	50.9	51.6	50.8	50.9	50.9	51.0	51.1	50.9	50.7
120°	46.6	48.3	50.0	50.6	49.8	49.9	49.9	50.0	50.0	49.8	49.7
121°	45.7	47.3	49.0	49.6	48.8	48.9	48.9	49.0	49.0	48.8	48.7
122°	44.7	46.4	48.0	48.6	47.8	47.9	47.9	48.0	48.0	47.8	47.6
123°	43.8	45.4	47.0	47.6	46.8	46.9	46.9	47.0	46.9	46.8	46.6
124°	42.8	44.4	46.0	46.6	45.8	45.9	45.8	45.9	45.9	45.7	45.5
125°	41.9	43.4	45.0	45.6	44.7	44.8	44.8	44.9	44.9	44.6	44.4
126°	40.9	42.5	44.0	44.6	43.7	43.8	43.8	43.8	43.8	43.6	43.4
127°	39.9	41.5	43.0	43.6	42.6	42.7	42.7	42.8	42.8	42.5	42.3
128°	39.0	40.4	42.0	42.5	41.6	41.7	41.7	41.7	41.7	41.4	41.3
129°	38.0	39.4	40.9	41.5	40.6	40.6	40.7	40.7	40.6	40.4	40.2
130°	37.0	38.4	39.9	40.4	39.5	39.6	39.6	39.6	39.6	39.3	39.1
131°	36.0	37.4	38.8	39.3	38.4	38.5	38.5	38.5	38.5	38.2	38.0
132°	35.0	36.4	37.8	38.3	37.3	37.5	37.5	37.4	37.4	37.1	36.9
133°	34.0	35.4	36.8	37.3	36.3	36.4	36.4	36.4	36.3	36.0	35.8
134°	33.0	34.4	35.7	36.2	35.2	35.3	35.3	35.3	35.2	34.9	34.8





TEST NUMBER: P832485

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-927

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	32.0	33.4	34.7	35.1	34.1	34.2	34.2	34.2	34.1	33.9	33.7
136°	31.0	32.3	33.6	34.1	33.1	33.2	33.2	33.1	33.0	32.8	32.6
137°	30.0	31.3	32.6	33.0	32.0	32.1	32.1	32.0	31.9	31.7	31.5
138°	29.0	30.3	31.5	32.0	30.9	31.0	31.0	31.0	30.8	30.6	30.4
139°	28.0	29.2	30.5	30.9	29.8	29.9	29.9	29.9	29.8	29.5	29.3
140°	27.0	28.2	29.4	29.8	28.8	28.8	28.8	28.8	28.7	28.4	28.2
141°	26.0	27.2	28.3	28.7	27.7	27.8	27.8	27.7	27.6	27.3	27.1
142°	25.0	26.1	27.3	27.7	26.6	26.7	26.7	26.6	26.5	26.2	26.0
143°	24.0	25.3	26.2	26.6	25.5	25.6	25.6	25.5	25.4	25.1	24.9
144°	23.1	24.2	25.1	25.6	24.5	24.5	24.5	24.5	24.3	24.0	23.8
145°	22.1	23.2	24.1	24.5	23.4	23.5	23.5	23.4	23.2	22.9	22.7
146°	21.1	22.2	23.2	23.5	22.3	22.4	22.4	22.3	22.2	21.9	21.6
147°	20.1	21.1	22.1	22.4	21.2	21.3	21.3	21.3	21.1	20.8	20.5
148°	19.1	20.1	21.1	21.4	20.2	20.3	20.3	20.2	20.0	19.7	19.5
149°	18.1	19.1	20.0	20.4	19.1	19.2	19.2	19.2	19.0	18.7	18.4
150°	17.1	18.1	19.0	19.3	18.1	18.2	18.2	18.1	17.9	17.6	17.3
151°	16.1	17.1	17.9	18.3	17.1	17.2	17.2	17.1	16.9	16.6	16.3
152°	15.2	16.1	16.9	17.2	16.0	16.1	16.1	16.1	15.9	15.5	15.3
153°	14.2	15.1	15.9	16.2	15.0	15.1	15.1	15.0	14.8	14.5	14.2
154°	13.3	14.1	14.9	15.2	14.0	14.1	14.1	14.0	13.8	13.5	13.2
155°	12.3	13.2	13.9	14.2	13.0	13.1	13.1	13.0	12.9	12.5	12.2
156°	11.4	12.2	12.9	13.2	12.0	12.1	12.1	12.1	11.9	11.5	11.2
157°	10.5	11.3	11.9	12.2	11.1	11.2	11.2	11.1	10.9	10.6	10.3
158°	9.6	10.3	11.0	11.2	10.1	10.2	10.2	10.2	10.0	9.7	9.4
159°	8.8	9.4	10.0	10.3	9.2	9.3	9.3	9.3	9.1	8.7	8.4
160°	7.9	8.5	9.1	9.4	8.3	8.4	8.4	8.3	8.2	7.9	7.5
161°	7.1	7.7	8.2	8.5	7.4	7.5	7.5	7.5	7.3	7.0	6.7
162°	6.3	6.8	7.3	7.6	6.6	6.6	6.7	6.6	6.5	6.2	5.9
163°	5.5	6.0	6.5	6.7	5.8	5.9	5.9	5.9	5.7	5.4	5.2
164°	4.7	5.3	5.7	5.9	5.0	5.1	5.1	5.1	5.0	4.7	4.4
165°	4.0	4.5	4.9	5.1	4.3	4.4	4.4	4.4	4.2	4.0	3.7
166°	3.4	3.8	4.1	4.3	3.6	3.7	3.7	3.7	3.5	3.3	3.0
167°	2.7	3.1	3.4	3.6	3.0	3.0	3.0	3.0	2.9	2.7	2.5
168°	2.3	2.5	2.8	3.0	2.4	2.4	2.4	2.4	2.3	2.1	1.9
169°	1.8	2.0	2.3	2.4	1.8	1.9	1.9	1.9	1.8	1.6	1.4
170°	1.3	1.6	1.8	1.9	1.4	1.4	1.4	1.4	1.3	1.2	1.0
171°	0.9	1.1	1.3	1.4	1.0	1.0	1.0	1.0	0.9	0.8	0.7
172°	0.6	0.8	0.9	1.0	0.6	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	0.3	0.3	0.2
174°	0.3	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.1
175°	0.2	0.2	0.2	0.3	0.1	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	0.0	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: P832485  
CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-927

**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: P832485

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-927

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	333.3	333.3	333.3	333.3	333.3	333.3
1°	333.0	333.1	333.2	333.2	333.3	333.3
2°	332.9	332.9	333.0	333.1	333.3	333.2
3°	332.7	332.7	332.8	332.9	333.0	333.1
4°	332.6	332.4	332.6	332.6	333.0	333.1
5°	332.3	332.2	332.5	332.4	332.8	332.9
6°	331.9	331.9	332.3	332.2	332.5	332.5
7°	331.7	331.6	332.0	331.8	332.2	332.4
8°	331.3	331.3	331.6	331.5	331.9	332.1
9°	330.8	331.0	331.2	331.1	331.4	331.8
10°	330.4	330.5	330.8	330.6	331.0	331.4
11°	329.8	330.0	330.2	330.0	330.4	331.0
12°	329.2	329.3	329.6	329.4	329.8	330.6
13°	328.5	328.7	329.0	328.8	329.2	330.0
14°	327.8	328.0	328.3	328.0	328.4	329.4
15°	326.9	327.1	327.4	327.1	327.7	328.7
16°	325.8	326.2	326.4	326.1	326.8	327.7
17°	324.8	325.2	325.2	325.1	325.8	326.9
18°	323.7	324.1	324.1	324.0	324.8	325.9
19°	322.6	322.9	322.7	322.8	323.6	324.8
20°	321.3	321.7	321.5	321.5	322.4	323.6
21°	319.8	320.2	320.1	319.9	321.1	322.3
22°	318.3	318.7	318.8	318.5	319.6	320.8
23°	316.8	317.3	317.1	316.9	318.0	319.4
24°	315.1	315.6	315.5	315.3	316.4	317.7
25°	313.3	314.1	313.8	313.5	314.8	316.0
26°	311.5	312.2	311.8	311.7	312.8	314.2
27°	309.5	310.3	309.9	309.7	311.0	312.4
28°	307.5	308.2	307.8	307.6	308.9	310.3
29°	305.3	306.1	305.7	305.4	306.7	308.4
30°	303.0	303.9	303.4	303.3	304.5	306.2
31°	300.7	301.6	301.1	300.9	302.1	303.9
32°	298.3	299.2	298.7	298.5	299.7	301.6
33°	295.8	296.7	296.3	296.0	297.3	299.2
34°	293.2	294.0	293.7	293.3	294.8	296.8
35°	290.6	291.4	291.0	290.6	292.0	294.1
36°	287.8	288.7	288.3	287.8	289.3	291.4
37°	284.9	285.8	285.4	285.0	286.5	288.5
38°	281.9	282.9	282.5	282.0	283.5	285.7
39°	278.8	279.8	279.4	278.9	280.5	282.7
40°	275.6	276.8	276.2	275.8	277.5	279.7
41°	272.4	273.5	272.9	272.6	274.2	276.4
42°	269.1	270.4	269.6	269.3	270.9	273.3
43°	265.7	267.0	266.1	265.9	267.5	269.9
44°	262.2	263.6	262.7	262.4	264.1	266.5

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



TEST NUMBER: P832485

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-927

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	258.6	260.2	259.2	258.9	260.5	263.0
46°	254.9	256.5	255.4	255.2	256.8	259.4
47°	251.3	253.0	251.7	251.4	253.2	255.8
48°	247.6	249.1	247.9	247.7	249.2	252.0
49°	243.8	245.4	244.1	243.8	245.5	248.2
50°	239.7	241.7	240.2	239.9	241.5	244.3
51°	235.7	237.6	236.2	235.9	237.5	240.4
52°	231.6	233.5	232.0	231.8	233.5	236.3
53°	227.3	229.5	228.0	227.7	229.4	232.4
54°	223.1	225.2	223.8	223.5	225.2	228.1
55°	218.8	221.0	219.5	219.2	220.9	223.9
56°	214.4	216.8	215.2	214.9	216.7	219.6
57°	210.0	212.3	210.8	210.5	212.3	215.3
58°	205.6	207.9	206.3	206.1	207.9	210.9
59°	201.1	203.5	201.9	201.6	203.5	206.5
60°	196.6	199.1	197.4	197.1	199.0	202.0
61°	192.2	194.6	192.8	192.6	194.5	197.5
62°	187.6	190.0	188.3	188.1	189.9	193.0
63°	183.1	185.4	183.8	183.4	185.3	188.4
64°	178.5	180.9	179.2	178.8	180.7	183.8
65°	173.9	176.3	174.6	174.3	176.1	179.2
66°	169.3	171.8	170.1	169.7	171.5	174.6
67°	164.7	167.1	165.4	165.0	166.8	169.9
68°	160.3	162.5	160.9	160.4	162.1	165.3
69°	155.6	157.9	156.3	155.7	157.5	160.5
70°	151.1	153.5	151.6	151.1	152.9	155.9
71°	146.6	148.9	147.0	146.6	148.3	151.3
72°	142.2	144.5	142.5	142.0	143.7	146.8
73°	137.8	140.0	138.1	137.5	139.2	142.2
74°	133.5	135.6	133.5	133.0	134.7	137.7
75°	129.2	131.3	129.3	128.6	130.2	133.2
76°	124.9	127.0	125.0	124.3	125.9	128.8
77°	120.9	122.8	120.7	120.0	121.6	124.5
78°	116.9	118.8	116.6	115.8	117.3	120.2
79°	113.1	114.8	112.6	111.7	113.2	116.0
80°	109.3	110.9	108.7	107.8	109.2	111.9
81°	105.8	107.2	105.0	104.0	105.3	108.1
82°	102.4	103.7	101.4	100.4	101.6	104.3
83°	99.2	100.3	97.9	96.8	98.0	100.6
84°	96.2	97.2	94.8	93.6	94.6	97.2
85°	93.4	94.1	91.7	90.5	91.5	93.9
86°	90.8	91.4	89.0	87.7	88.5	90.9
87°	88.7	89.0	86.6	85.2	85.9	88.1
88°	86.8	86.8	84.4	83.0	83.6	85.7
89°	85.0	84.9	82.5	81.0	81.5	83.5

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



TEST NUMBER: P832485

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-927

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	83.3	83.1	80.7	79.2	79.6	81.5
91°	81.7	81.5	79.0	77.5	77.8	79.7
92°	80.2	79.9	77.5	75.8	76.1	77.9
93°	78.6	78.3	75.9	74.3	74.5	76.2
94°	77.2	76.9	74.5	72.8	73.0	74.6
95°	75.8	75.4	73.0	71.4	71.5	73.1
96°	74.4	74.1	71.7	70.0	70.1	71.6
97°	73.1	72.7	70.4	68.7	68.8	70.2
98°	71.8	71.4	69.2	67.5	67.5	68.9
99°	70.6	70.2	67.9	66.3	66.2	67.6
100°	69.4	69.0	66.8	65.1	65.1	66.3
101°	68.2	67.9	65.6	64.0	63.9	65.1
102°	67.1	66.7	64.5	62.9	62.8	64.0
103°	66.0	65.6	63.4	61.8	61.7	62.8
104°	64.9	64.6	62.4	60.8	60.7	61.7
105°	63.9	63.5	61.4	59.8	59.7	60.7
106°	62.8	62.5	60.4	58.8	58.6	59.7
107°	61.8	61.5	59.4	57.9	57.7	58.7
108°	60.8	60.6	58.5	56.9	56.7	57.7
109°	59.8	59.6	57.5	56.0	55.8	56.7
110°	58.8	58.6	56.6	55.1	54.8	55.8
111°	57.9	57.7	55.7	54.2	53.9	54.9
112°	56.9	56.7	54.8	53.3	53.0	53.9
113°	56.1	55.8	53.9	52.4	52.1	53.0
114°	55.2	54.8	52.9	51.5	51.2	52.1
115°	54.3	53.9	52.0	50.6	50.3	51.2
116°	53.3	53.0	51.1	49.7	49.4	50.3
117°	52.3	52.0	50.2	48.8	48.5	49.4
118°	51.4	51.0	49.2	47.9	47.6	48.4
119°	50.4	50.1	48.3	46.9	46.7	47.5
120°	49.4	49.1	47.4	46.0	45.8	46.6
121°	48.3	48.1	46.4	45.1	44.9	45.7
122°	47.3	47.1	45.5	44.2	43.9	44.7
123°	46.3	46.1	44.5	43.2	43.0	43.8
124°	45.2	45.1	43.5	42.3	42.1	42.8
125°	44.2	44.1	42.6	41.3	41.1	41.9
126°	43.1	43.1	41.6	40.3	40.2	40.9
127°	42.0	42.1	40.6	39.4	39.2	39.9
128°	41.0	41.0	39.6	38.4	38.2	39.0
129°	39.9	40.0	38.6	37.4	37.3	38.0
130°	38.8	39.0	37.6	36.4	36.3	37.0
131°	37.8	37.9	36.6	35.4	35.3	36.0
132°	36.7	36.9	35.6	34.5	34.4	35.0
133°	35.6	35.8	34.6	33.5	33.4	34.0
134°	34.5	34.8	33.6	32.5	32.4	33.0

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



TEST NUMBER: P832485

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-927

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
135°	33.4	33.8	32.5	31.5	31.4	32.0
136°	32.4	32.7	31.5	30.5	30.4	31.0
137°	31.3	31.6	30.5	29.5	29.4	30.0
138°	30.2	30.6	29.4	28.5	28.4	29.0
139°	29.1	29.5	28.4	27.5	27.4	28.0
140°	28.0	28.5	27.4	26.5	26.4	27.0
141°	26.9	27.4	26.3	25.5	25.4	26.0
142°	25.8	26.3	25.3	24.5	24.4	25.0
143°	24.7	25.2	24.3	23.5	23.5	24.0
144°	23.6	24.2	23.3	22.6	22.5	23.1
145°	22.5	23.2	22.3	21.6	21.5	22.1
146°	21.4	22.2	21.3	20.6	20.5	21.1
147°	20.3	21.1	20.3	19.6	19.6	20.1
148°	19.3	20.1	19.3	18.6	18.6	19.1
149°	18.2	19.0	18.3	17.6	17.6	18.1
150°	17.1	18.0	17.2	16.6	16.6	17.1
151°	16.1	17.0	16.2	15.6	15.6	16.1
152°	15.1	15.9	15.2	14.7	14.7	15.2
153°	14.0	14.9	14.3	13.7	13.7	14.2
154°	13.0	13.9	13.3	12.8	12.8	13.3
155°	12.0	12.9	12.3	11.9	11.9	12.3
156°	11.0	11.9	11.4	10.9	11.0	11.4
157°	10.1	11.0	10.4	10.0	10.1	10.5
158°	9.2	10.0	9.5	9.2	9.2	9.6
159°	8.2	9.1	8.6	8.3	8.3	8.8
160°	7.4	8.2	7.8	7.5	7.5	7.9
161°	6.5	7.3	6.9	6.6	6.7	7.1
162°	5.7	6.4	6.1	5.8	5.9	6.3
163°	5.0	5.6	5.3	5.1	5.1	5.5
164°	4.2	4.8	4.6	4.4	4.4	4.7
165°	3.5	4.1	3.8	3.7	3.7	4.0
166°	2.9	3.4	3.2	3.0	3.1	3.4
167°	2.3	2.7	2.5	2.4	2.5	2.7
168°	1.7	2.2	2.1	2.0	2.0	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	0.7	0.8	0.9
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	0.0	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: P832485  
CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-927

**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

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

Report Prepared for

Cooper Lighting Solutions

HALO

Report Number: SP1-2405-083-1

Test Date: 05/22/2024

Luminaire Tested: 7ORB15FS-1PK-ED-CA-2700K

Data in this report applies to families of products 7ORB15FS-1PK-ED-CA-2700K.



**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2405-083-1  
 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-2700K**  
 Description: Halo Spin Light 2700K

**Spectral Parameters**

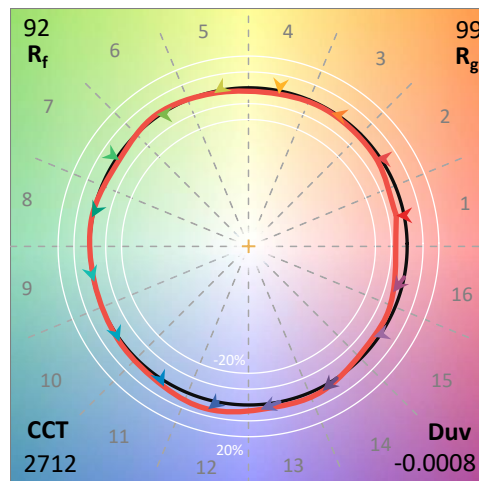
CCT (K): 2712  
 CIE u': 0.2621  
 CIE v': 0.5259  
 Duv: -0.0008  
 CIE x: 0.4574  
 CIE y: 0.4078  
 CIE z: 0.1348  
 Peak Wavelength (nm): 632  
 Dominant Wavelength (nm): 584  
 Purity: 60

CRI (Ra):	95.0		
R1:	97.3	R9:	65.3
R2:	99.3	R10:	96.3
R3:	99.2	R11:	98.3
R4:	96.6	R12:	88.3
R5:	97.1	R13:	97.8
R6:	95.3	R14:	98.2
R7:	91.1		
R8:	84.0		

Rf: 92  
 Rg: 98.9

**Test Conditions**

Stabilization Time: 23M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 25.0/42%  
 Sphere Temperature (°C): 25.2

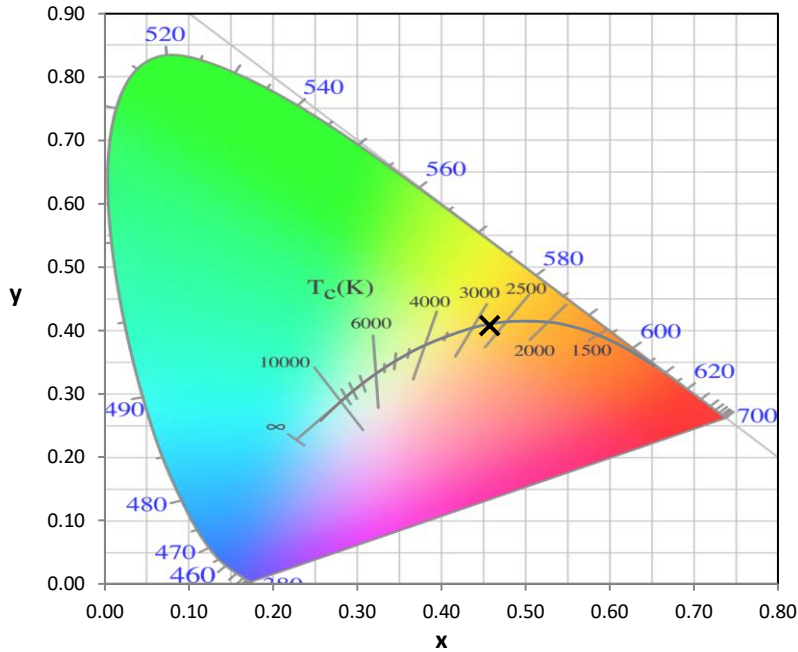


REPORT NUMBER: SP1-2405-083-1

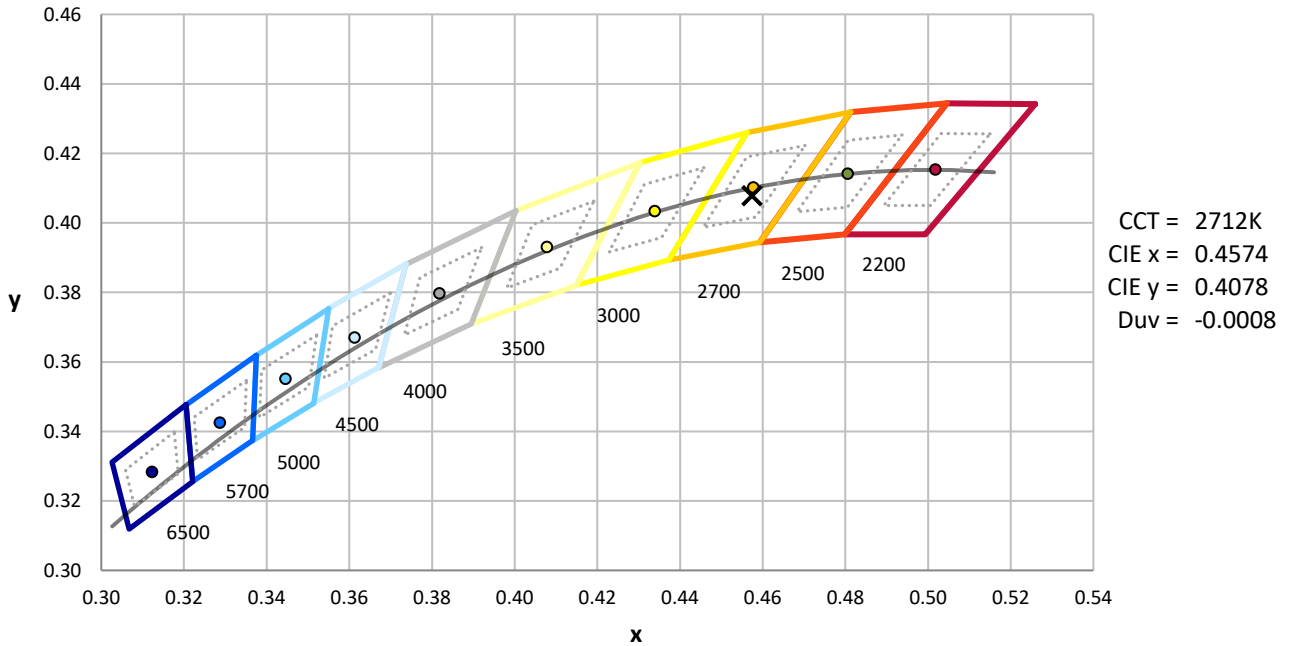
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	2/12/2024	8/12/2024
Power Meter	XITRON 2801 IN0071	10/23/2023	10/23/2024
AC Power Source	CHROMA 61603 IN0063	10/24/2023	10/24/2024
DC Power Source	AGILENT E3634A IN0208	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: SP1-2405-083-1

CIE 1931 Chromaticity Diagram



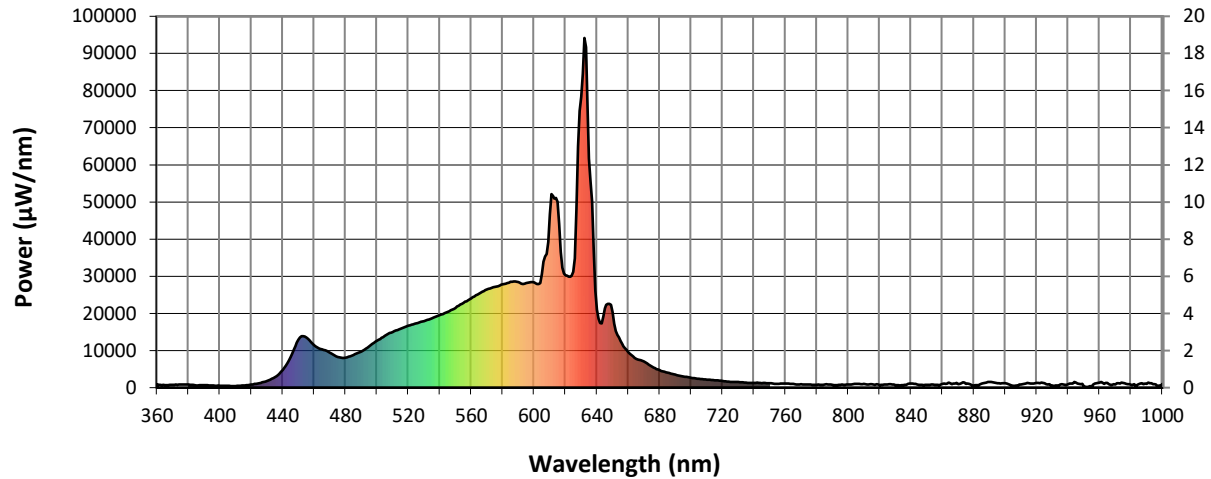
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 2700K 4-step quadrangle

REPORT NUMBER: SP1-2405-083-1

**Photopic Flux vs. Wavelength**

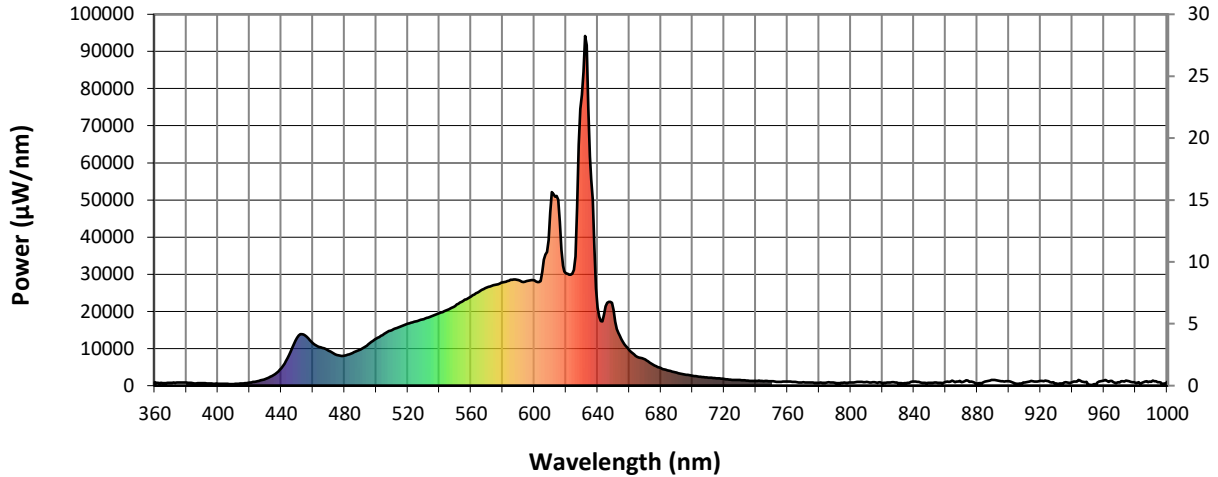


#####

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	917	NR	490	9740	NR	620	30202	NR	750	1184	NR	880	606	NR
365	669	NR	495	11077	NR	625	31144	NR	755	1028	NR	885	1116	NR
370	733	NR	500	12609	NR	630	78338	NR	760	1114	NR	890	1570	NR
375	843	NR	505	13914	NR	635	61675	NR	765	999	NR	895	1198	NR
380	829	NR	510	14993	NR	640	21016	NR	770	911	NR	900	1202	NR
385	612	NR	515	15855	NR	645	21330	NR	775	834	NR	905	522	NR
390	701	NR	520	16714	NR	650	20363	NR	780	777	NR	910	838	NR
395	556	NR	525	17308	NR	655	12606	NR	785	869	NR	915	1161	NR
400	529	NR	530	17949	NR	660	9578	NR	790	734	NR	920	1235	NR
405	492	NR	535	18711	NR	665	7736	NR	795	733	NR	925	1151	NR
410	443	NR	540	19568	NR	670	7016	NR	800	845	NR	930	568	NR
415	598	NR	545	20408	NR	675	5663	NR	805	976	NR	935	803	NR
420	828	NR	550	21475	NR	680	4681	NR	810	987	NR	940	928	NR
425	1200	NR	555	22830	NR	685	4041	NR	815	919	NR	945	1343	NR
430	1812	NR	560	24025	NR	690	3479	NR	820	697	NR	950	351	NR
435	2831	NR	565	25282	NR	695	3017	NR	825	852	NR	955	299	NR
440	4731	NR	570	26450	NR	700	2659	NR	830	664	NR	960	1401	NR
445	8247	NR	575	27123	NR	705	2370	NR	835	685	NR	965	1287	NR
450	12908	NR	580	27829	NR	710	2137	NR	840	1065	NR	970	845	NR
455	13521	NR	585	28516	NR	715	2004	NR	845	791	NR	975	1263	NR
460	11458	NR	590	28429	NR	720	1792	NR	850	791	NR	980	798	NR
465	10313	NR	595	28152	NR	725	1568	NR	855	754	NR	985	946	NR
470	9403	NR	600	28305	NR	730	1508	NR	860	1010	NR	990	996	NR
475	8287	NR	605	30592	NR	735	1339	NR	865	1196	NR	995	941	NR
480	8093	NR	610	46706	NR	740	1309	NR	870	969	NR	1000	1060	NR
485	8796	NR	615	50044	NR	745	1218	NR	875	1039	NR			

REPORT NUMBER: SP1-2405-083-1

Scotopic Flux vs. Wavelength



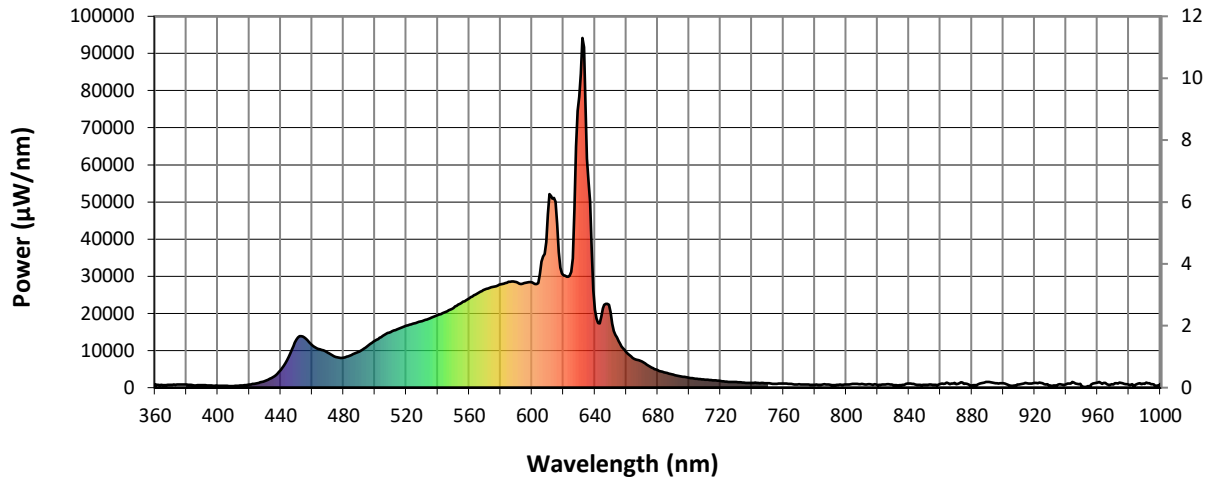
Scotopic Lumens: 2335.1

S/P: 1.33

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	917	NR	490	9740	NR	620	30202	NR	750	1184	NR	880	606	NR
365	669	NR	495	11077	NR	625	31144	NR	755	1028	NR	885	1116	NR
370	733	NR	500	12609	NR	630	78338	NR	760	1114	NR	890	1570	NR
375	843	NR	505	13914	NR	635	61675	NR	765	999	NR	895	1198	NR
380	829	NR	510	14993	NR	640	21016	NR	770	911	NR	900	1202	NR
385	612	NR	515	15855	NR	645	21330	NR	775	834	NR	905	522	NR
390	701	NR	520	16714	NR	650	20363	NR	780	777	NR	910	838	NR
395	556	NR	525	17308	NR	655	12606	NR	785	869	NR	915	1161	NR
400	529	NR	530	17949	NR	660	9578	NR	790	734	NR	920	1235	NR
405	492	NR	535	18711	NR	665	7736	NR	795	733	NR	925	1151	NR
410	443	NR	540	19568	NR	670	7016	NR	800	845	NR	930	568	NR
415	598	NR	545	20408	NR	675	5663	NR	805	976	NR	935	803	NR
420	828	NR	550	21475	NR	680	4681	NR	810	987	NR	940	928	NR
425	1200	NR	555	22830	NR	685	4041	NR	815	919	NR	945	1343	NR
430	1812	NR	560	24025	NR	690	3479	NR	820	697	NR	950	351	NR
435	2831	NR	565	25282	NR	695	3017	NR	825	852	NR	955	299	NR
440	4731	NR	570	26450	NR	700	2659	NR	830	664	NR	960	1401	NR
445	8247	NR	575	27123	NR	705	2370	NR	835	685	NR	965	1287	NR
450	12908	NR	580	27829	NR	710	2137	NR	840	1065	NR	970	845	NR
455	13521	NR	585	28516	NR	715	2004	NR	845	791	NR	975	1263	NR
460	11458	NR	590	28429	NR	720	1792	NR	850	791	NR	980	798	NR
465	10313	NR	595	28152	NR	725	1568	NR	855	754	NR	985	946	NR
470	9403	NR	600	28305	NR	730	1508	NR	860	1010	NR	990	996	NR
475	8287	NR	605	30592	NR	735	1339	NR	865	1196	NR	995	941	NR
480	8093	NR	610	46706	NR	740	1309	NR	870	969	NR	1000	1060	NR
485	8796	NR	615	50044	NR	745	1218	NR	875	1039	NR			

REPORT NUMBER: SP1-2405-083-1

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: 888.1**

**M/P: 0.5**

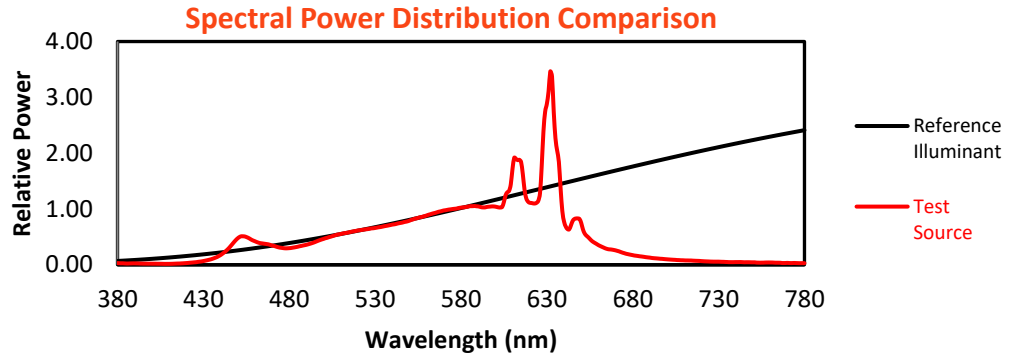
λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)
360	917	NR	490	9740	NR	620	30202	NR	750	1184	NR	880	606	NR
365	669	NR	495	11077	NR	625	31144	NR	755	1028	NR	885	1116	NR
370	733	NR	500	12609	NR	630	78338	NR	760	1114	NR	890	1570	NR
375	843	NR	505	13914	NR	635	61675	NR	765	999	NR	895	1198	NR
380	829	NR	510	14993	NR	640	21016	NR	770	911	NR	900	1202	NR
385	612	NR	515	15855	NR	645	21330	NR	775	834	NR	905	522	NR
390	701	NR	520	16714	NR	650	20363	NR	780	777	NR	910	838	NR
395	556	NR	525	17308	NR	655	12606	NR	785	869	NR	915	1161	NR
400	529	NR	530	17949	NR	660	9578	NR	790	734	NR	920	1235	NR
405	492	NR	535	18711	NR	665	7736	NR	795	733	NR	925	1151	NR
410	443	NR	540	19568	NR	670	7016	NR	800	845	NR	930	568	NR
415	598	NR	545	20408	NR	675	5663	NR	805	976	NR	935	803	NR
420	828	NR	550	21475	NR	680	4681	NR	810	987	NR	940	928	NR
425	1200	NR	555	22830	NR	685	4041	NR	815	919	NR	945	1343	NR
430	1812	NR	560	24025	NR	690	3479	NR	820	697	NR	950	351	NR
435	2831	NR	565	25282	NR	695	3017	NR	825	852	NR	955	299	NR
440	4731	NR	570	26450	NR	700	2659	NR	830	664	NR	960	1401	NR
445	8247	NR	575	27123	NR	705	2370	NR	835	685	NR	965	1287	NR
450	12908	NR	580	27829	NR	710	2137	NR	840	1065	NR	970	845	NR
455	13521	NR	585	28516	NR	715	2004	NR	845	791	NR	975	1263	NR
460	11458	NR	590	28429	NR	720	1792	NR	850	791	NR	980	798	NR
465	10313	NR	595	28152	NR	725	1568	NR	855	754	NR	985	946	NR
470	9403	NR	600	28305	NR	730	1508	NR	860	1010	NR	990	996	NR
475	8287	NR	605	30592	NR	735	1339	NR	865	1196	NR	995	941	NR
480	8093	NR	610	46706	NR	740	1309	NR	870	969	NR	1000	1060	NR
485	8796	NR	615	50044	NR	745	1218	NR	875	1039	NR			

REPORT NUMBER: SP1-2405-083-1

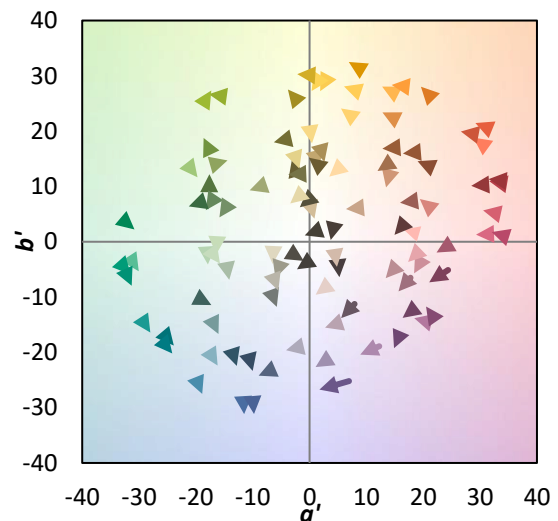
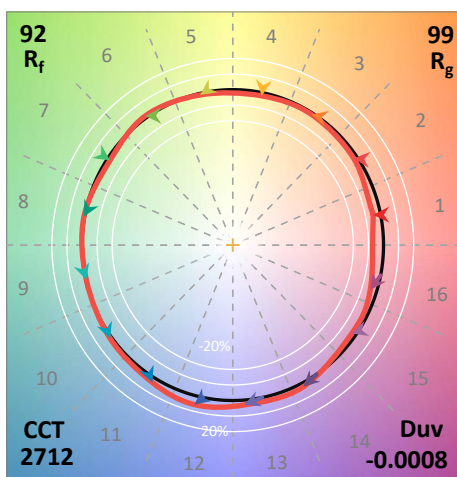
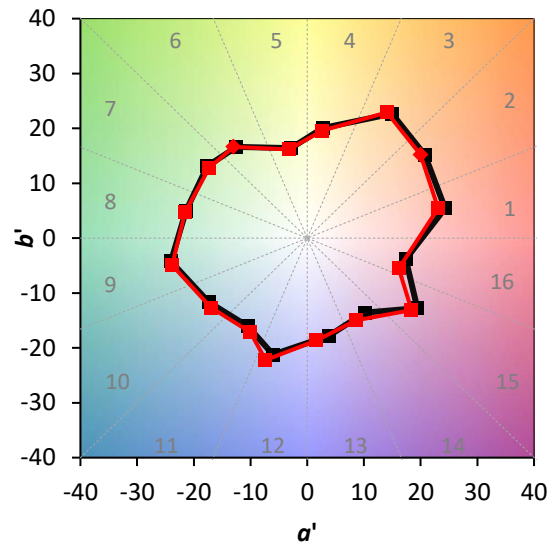
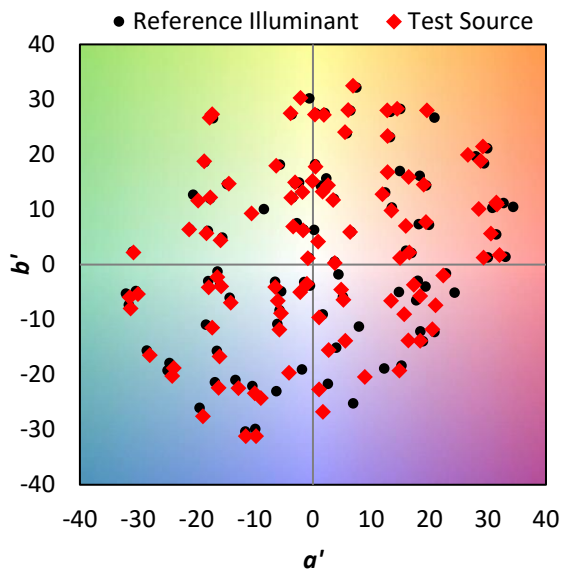
TM-30-18

**Summary**

$R_f = 92$   
 $R_g = 98.9$   
 CIE  $R_a = 95.0$   
 $R_9 = 65.3$



**Color Vector Graphics**

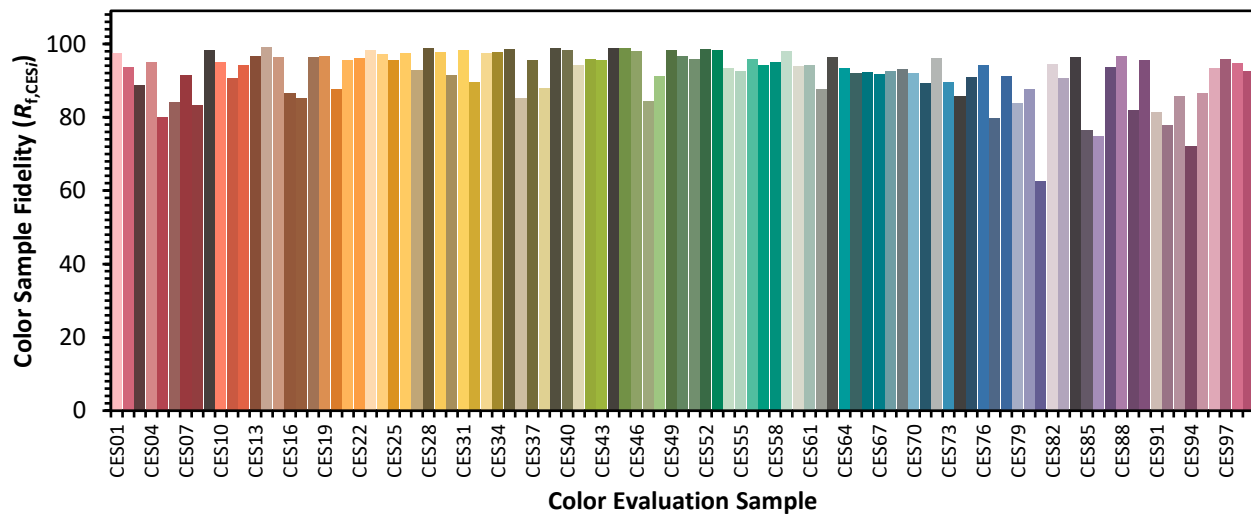


REPORT NUMBER: SP1-2405-083-1

TM-30-18

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

CES01 = 86	CES26 = 97	CES51 = 96	CES76 = 94
CES02 = 64	CES27 = 93	CES52 = 99	CES77 = 80
CES03 = 32	CES28 = 99	CES53 = 98	CES78 = 91
CES04 = 71	CES29 = 98	CES54 = 93	CES79 = 84
CES05 = 51	CES30 = 92	CES55 = 92	CES80 = 88
CES06 = 51	CES31 = 98	CES56 = 96	CES81 = 63
CES07 = 45	CES32 = 89	CES57 = 94	CES82 = 94
CES08 = 43	CES33 = 97	CES58 = 95	CES83 = 91
CES09 = 29	CES34 = 98	CES59 = 98	CES84 = 96
CES10 = 77	CES35 = 98	CES60 = 94	CES85 = 76
CES11 = 59	CES36 = 85	CES61 = 94	CES86 = 75
CES12 = 66	CES37 = 96	CES62 = 88	CES87 = 94
CES13 = 44	CES38 = 88	CES63 = 96	CES88 = 97
CES14 = 74	CES39 = 99	CES64 = 93	CES89 = 82
CES15 = 72	CES40 = 98	CES65 = 92	CES90 = 96
CES16 = 48	CES41 = 94	CES66 = 92	CES91 = 81
CES17 = 50	CES42 = 96	CES67 = 92	CES92 = 78
CES18 = 57	CES43 = 96	CES68 = 93	CES93 = 86
CES19 = 72	CES44 = 99	CES69 = 93	CES94 = 72
CES20 = 68	CES45 = 99	CES70 = 92	CES95 = 87
CES21 = 87	CES46 = 98	CES71 = 89	CES96 = 93
CES22 = 79	CES47 = 84	CES72 = 96	CES97 = 96
CES23 = 92	CES48 = 91	CES73 = 89	CES98 = 95
CES24 = 91	CES49 = 98	CES74 = 86	CES99 = 92
CES25 = 72	CES50 = 97	CES75 = 91	

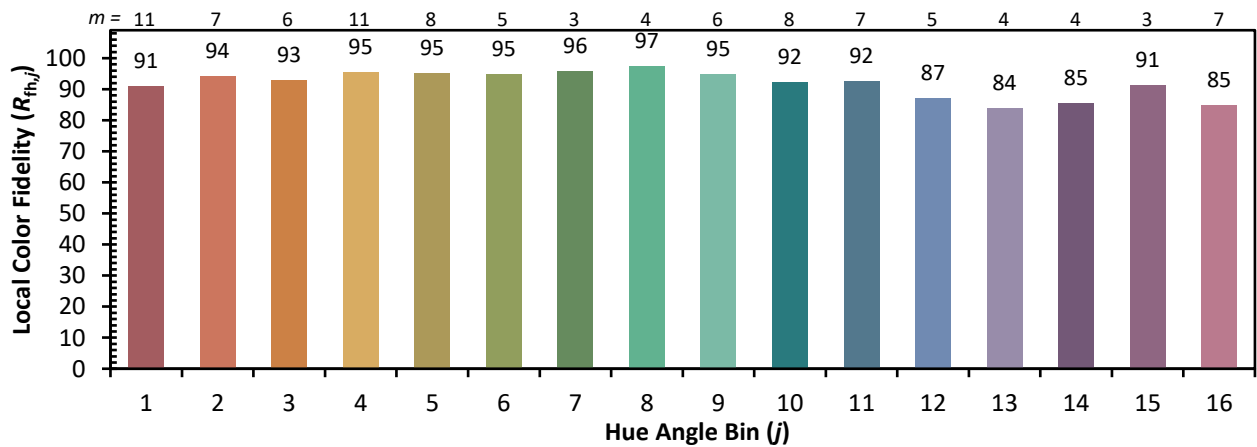
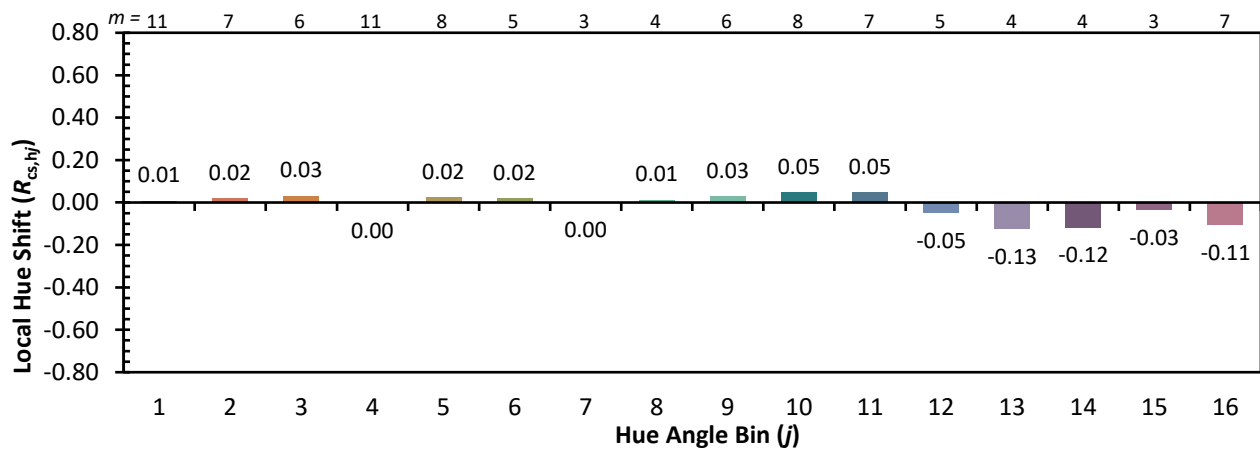
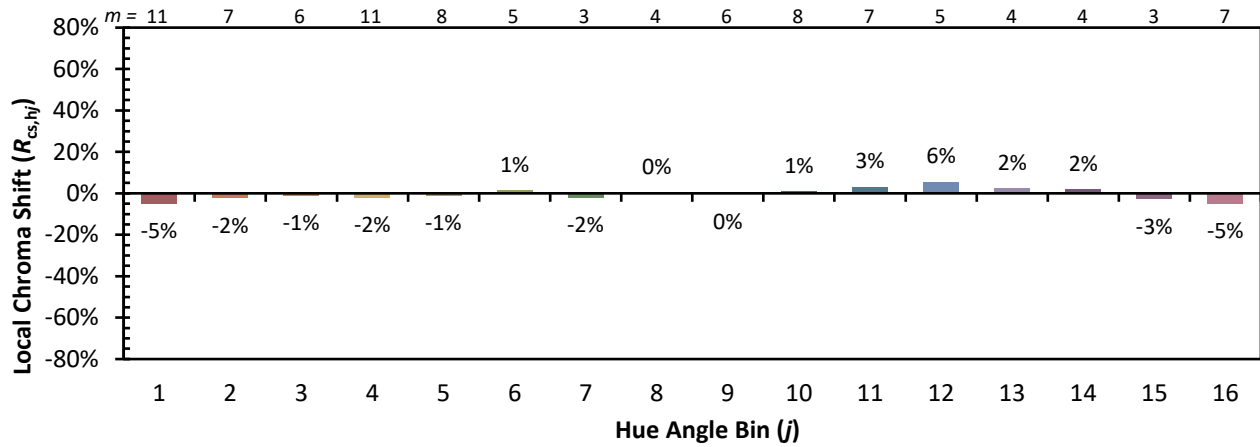




REPORT NUMBER: SP1-2405-083-1

TM-30-18

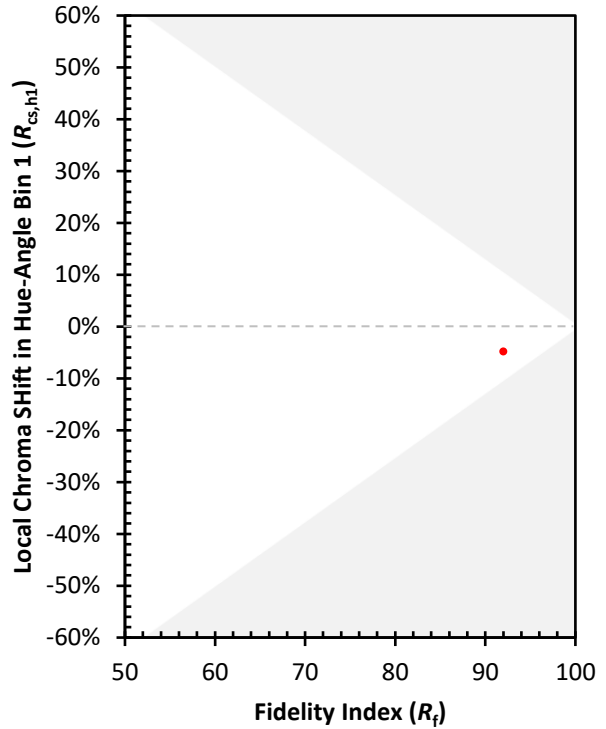
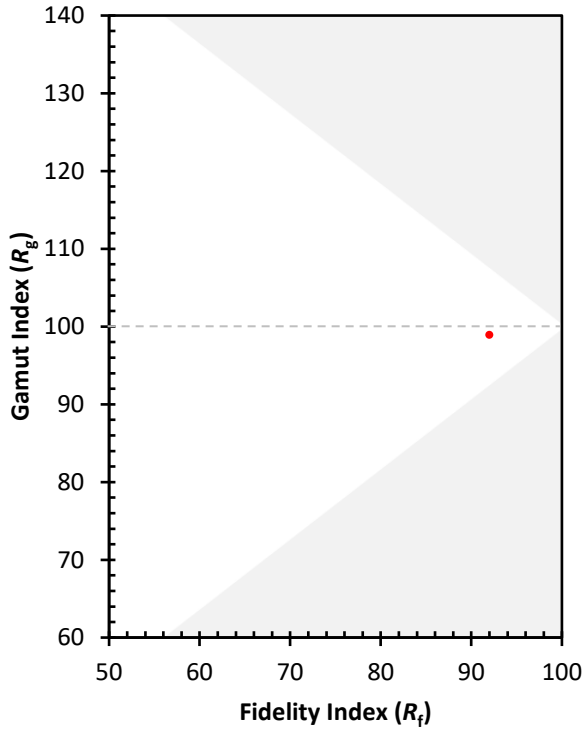
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2405-083-1

TM-30-18

Measure Comparisons



(END OF REPORT)