

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: P895713

Luminaire Tested: **RAWZC409-5000K**

Issue Date: 11/14/2024

Tested By:

Approved By:



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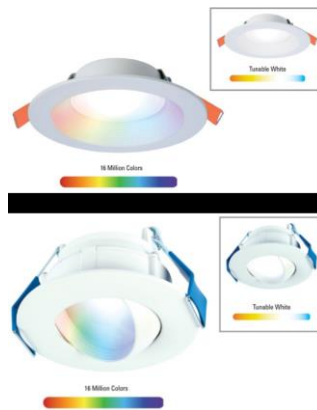
**Test Information**

Test Method: LM-79-08  
 Report Number: P895713  
 Test Lab:  
 Issue Date: 11/14/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: HALO  
 Catalog Number: RAWZC409-5000K  
 Description: 4IN ADJUSTABLE WiZ SELECTABLE CCT  
 Light Source: WiZ SELECTABLE 90CRI / 5000K CCT  
 Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
 Luminaire Lumens: 930.0 lumens  
 Efficiency: N/A  
 Efficacy: 91.2 lumens/watt  
 Spacing Criteria (0/90/45): 1.11 / 1.11 / 1.16  
 Luminous Opening: Circular (Dia: 0.33' x H: 0')  
 CIE Type: Direct

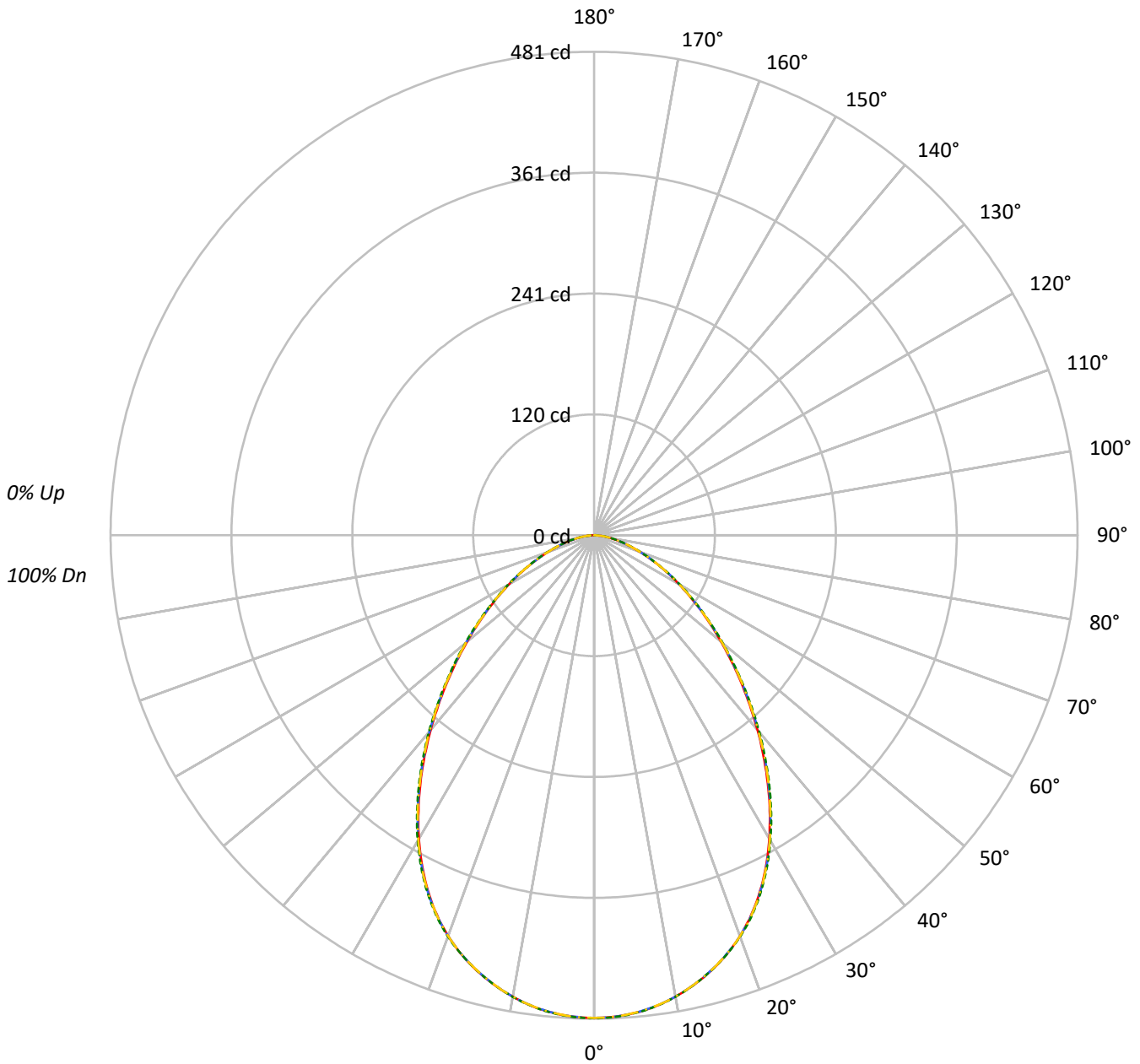
Input Watts (W): 10.2  
 Input Voltage (V): NR  
 Input Current (Ain): NR  
 Voltage Rise (V): NR  
 Power Factor: NR  
 Total Harmonic Distortion (THDi): NR  
 Frequency (hertz): 60  
 Stabilization Time: NR  
 Operation Time: NR  
 Ambient Temperature (°C): NR  
 Test Distance: 25 FT



Measurements		Calibration Due Date	
Instrument	Identification		
Photometer	GONIO 1 11111111	4/22/2021	10/22/2021
Power Meter	XITRON 2801 IN0197	12/1/2020	12/1/2021
AC Power Source	CHROMA 61505 IN0196	12/1/2020	12/1/2021
DC Power Supply	AGILENT E3634A IN0198	11/30/2020	11/30/2021
Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021

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### 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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87	87	
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76	76	
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66	66	
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58	58	
5	81	69	61	55	79	68	60	55	66	59	54	64	58	54	62	57	53	51	51	
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	46	46	
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41	41	
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37	37	
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34	34	
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31	31	

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	60446	60446	60446	60446
5°	60222	60260	60222	60260
10°	59576	59589	59576	59589
15°	58474	58461	58474	58461
20°	56838	56919	56838	56919
25°	54239	54461	54239	54461
30°	50644	51007	50644	51007
35°	46275	46720	46275	46720
40°	41548	42008	41548	42008
45°	36788	37269	36788	37269
50°	32325	32775	32325	32775
55°	28282	28655	28282	28655
60°	24591	24918	24591	24918
65°	21202	21470	21202	21470
70°	17920	18214	17920	18214
75°	14928	15365	14928	15365
80°	12393	13045	12393	13045
85°	9963	10252	9963	10252

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.2	4.9
10°-20°	126.2	13.6
20°-30°	179.4	19.3
30°-40°	188.7	20.3
40°-50°	160.7	17.3
50°-60°	116.5	12.5
60°-70°	71.4	7.7
70°-80°	33.6	3.6
80°-90°	8.3	0.9
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
<b>0°-30°</b>	<b>350.8</b>	<b>37.7</b>
<b>0°-40°</b>	<b>539.5</b>	<b>58.0</b>
<b>0°-60°</b>	<b>816.7</b>	<b>87.8</b>
<b>0°-90°</b>	<b>930.0</b>	<b>100.0</b>
90°-120°	0.0	0.0
90°-150°	0.0	0.0
<b>90°-180°</b>	<b>0.0</b>	<b>0.0</b>
<b>0°-180°</b>	<b>930.0</b>	<b>100.0</b>

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	480	480	480	480	480	
5°	477	477	477	477	477	45
15°	449	449	449	449	449	126
25°	391	392	391	392	391	179
35°	301	304	301	304	301	188
45°	207	209	207	209	207	160
55°	129	131	129	131	129	116
65°	71	72	71	72	71	71
75°	31	32	31	32	31	33
85°	7	7	7	7	7	8
90°	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°	480.3	480.3	480.3	480.3	480.3	480.3	480.3	480.3	480.3	480.3	480.3
0.5°	480.3	480.2	480.1	480.2	480.6	480.2	480.1	480.2	480.3	480.2	480.1
1°	480.2	480.1	480.1	480.1	480.3	480.1	480.1	480.1	480.2	480.1	480.1
1.5°	480.0	480.0	479.8	479.9	480.3	479.9	479.8	480.0	480.0	480.0	479.8
2°	479.7	479.7	479.6	479.7	480.0	479.7	479.6	479.7	479.7	479.7	479.6
2.5°	479.4	479.4	479.3	479.4	479.6	479.4	479.3	479.4	479.4	479.4	479.3
3°	479.1	479.1	479.0	479.1	479.4	479.1	479.0	479.1	479.1	479.1	479.0
3.5°	478.6	478.6	478.5	478.5	478.8	478.5	478.5	478.6	478.6	478.6	478.5
4°	478.1	478.0	478.0	478.0	478.4	478.0	478.0	478.0	478.1	478.0	478.0
4.5°	477.5	477.4	477.3	477.3	477.7	477.3	477.3	477.4	477.5	477.4	477.3
5°	476.7	476.7	476.6	476.6	477.0	476.6	476.6	476.7	476.7	476.7	476.6
5.5°	476.2	476.0	476.0	476.0	476.3	476.0	476.0	476.0	476.2	476.0	476.0
6°	475.3	475.2	475.1	475.2	475.5	475.2	475.1	475.2	475.3	475.2	475.1
6.5°	474.4	474.3	474.3	474.2	474.6	474.2	474.3	474.3	474.4	474.3	474.3
7°	473.5	473.5	473.4	473.3	473.6	473.3	473.4	473.5	473.5	473.5	473.4
7.5°	472.5	472.4	472.3	472.3	472.6	472.3	472.3	472.4	472.5	472.4	472.3
8°	471.4	471.3	471.1	471.2	471.5	471.2	471.1	471.3	471.4	471.3	471.1
8.5°	470.2	470.1	470.0	470.1	470.4	470.1	470.0	470.1	470.2	470.1	470.0
9°	468.9	468.8	468.8	468.7	469.1	468.7	468.8	468.8	468.9	468.8	468.8
9.5°	467.6	467.6	467.5	467.5	467.7	467.5	467.5	467.6	467.6	467.6	467.5
10°	466.2	466.1	466.0	466.1	466.3	466.1	466.0	466.1	466.2	466.1	466.0
10.5°	464.7	464.7	464.6	464.6	464.8	464.6	464.6	464.7	464.7	464.7	464.6
11°	463.3	463.2	463.1	463.0	463.3	463.0	463.1	463.2	463.3	463.2	463.1
11.5°	461.6	461.6	461.6	461.5	461.7	461.5	461.6	461.6	461.6	461.6	461.6
12°	460.0	460.0	459.8	459.7	459.9	459.7	459.8	460.0	460.0	460.0	459.8
12.5°	458.3	458.3	458.1	458.1	458.3	458.1	458.1	458.3	458.3	458.3	458.1
13°	456.6	456.5	456.3	456.2	456.4	456.2	456.3	456.5	456.6	456.5	456.3
13.5°	454.7	454.6	454.5	454.4	454.6	454.4	454.5	454.6	454.7	454.6	454.5
14°	452.8	452.7	452.6	452.5	452.7	452.5	452.6	452.7	452.8	452.7	452.6
14.5°	450.8	450.7	450.6	450.5	450.7	450.5	450.6	450.7	450.8	450.7	450.6
15°	448.8	448.7	448.6	448.5	448.7	448.5	448.6	448.7	448.8	448.7	448.6
15.5°	446.7	446.6	446.5	446.4	446.7	446.4	446.5	446.6	446.7	446.6	446.5
16°	444.6	444.4	444.2	444.2	444.5	444.2	444.2	444.4	444.6	444.4	444.2
16.5°	442.3	442.2	442.1	442.0	442.3	442.0	442.1	442.2	442.3	442.2	442.1
17°	439.8	440.0	439.8	439.8	440.0	439.8	439.8	440.0	439.8	440.0	439.8
17.5°	437.7	437.6	437.4	437.5	437.8	437.5	437.4	437.6	437.7	437.6	437.4
18°	435.1	435.1	434.9	434.9	435.3	434.9	434.9	435.1	435.1	435.1	434.9
18.5°	432.6	432.4	432.5	432.5	432.8	432.5	432.5	432.4	432.6	432.4	432.5
19°	429.9	429.9	429.8	429.9	430.3	429.9	429.8	429.9	429.9	429.9	429.8
19.5°	427.2	427.0	427.2	427.3	427.7	427.3	427.2	427.0	427.2	427.0	427.2
20°	424.4	424.4	424.4	424.6	425.0	424.6	424.4	424.4	424.4	424.4	424.4
20.5°	421.4	421.4	421.6	421.7	422.2	421.7	421.6	421.4	421.4	421.4	421.6
21°	418.3	418.4	418.5	418.7	419.1	418.7	418.5	418.4	418.3	418.4	418.5
21.5°	415.2	415.4	415.5	415.7	416.2	415.7	415.5	415.4	415.2	415.4	415.5
22°	412.1	412.1	412.4	412.6	413.0	412.6	412.4	412.1	412.1	412.1	412.4

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	408.6	408.8	409.1	409.4	409.8	409.4	409.1	408.8	408.6	408.8	409.1
23°	405.3	405.4	405.7	405.9	406.4	405.9	405.7	405.4	405.3	405.4	405.7
23.5°	401.8	402.1	402.2	402.6	403.0	402.6	402.2	402.1	401.8	402.1	402.2
24°	398.2	398.4	398.8	399.1	399.5	399.1	398.8	398.4	398.2	398.4	398.8
24.5°	394.5	394.7	395.1	395.5	396.0	395.5	395.1	394.7	394.5	394.7	395.1
25°	390.6	390.8	391.2	391.7	392.2	391.7	391.2	390.8	390.6	390.8	391.2
25.5°	386.8	387.1	387.5	388.0	388.5	388.0	387.5	387.1	386.8	387.1	387.5
26°	382.9	383.1	383.6	384.1	384.5	384.1	383.6	383.1	382.9	383.1	383.6
26.5°	378.7	379.1	379.6	380.1	380.7	380.1	379.6	379.1	378.7	379.1	379.6
27°	374.6	375.0	375.5	376.0	376.7	376.0	375.5	375.0	374.6	375.0	375.5
27.5°	370.4	370.8	371.4	371.9	372.5	371.9	371.4	370.8	370.4	370.8	371.4
28°	366.2	366.6	367.2	367.8	368.3	367.8	367.2	366.6	366.2	366.6	367.2
28.5°	361.8	362.2	362.9	363.5	363.9	363.5	362.9	362.2	361.8	362.2	362.9
29°	357.5	357.8	358.5	359.2	359.8	359.2	358.5	357.8	357.5	357.8	358.5
29.5°	353.0	353.4	354.3	354.8	355.4	354.8	354.3	353.4	353.0	353.4	354.3
30°	348.5	348.8	349.6	350.3	351.0	350.3	349.6	348.8	348.5	348.8	349.6
30.5°	343.9	344.3	345.2	345.8	346.4	345.8	345.2	344.3	343.9	344.3	345.2
31°	339.3	339.8	340.5	341.3	341.9	341.3	340.5	339.8	339.3	339.8	340.5
31.5°	334.6	335.0	336.0	336.7	337.2	336.7	336.0	335.0	334.6	335.0	336.0
32°	329.9	330.4	331.2	332.0	332.6	332.0	331.2	330.4	329.9	330.4	331.2
32.5°	325.1	325.6	326.5	327.3	327.9	327.3	326.5	325.6	325.1	325.6	326.5
33°	320.5	320.9	321.9	322.6	323.1	322.6	321.9	320.9	320.5	320.9	321.9
33.5°	315.8	316.1	317.1	317.8	318.4	317.8	317.1	316.1	315.8	316.1	317.1
34°	310.9	311.2	312.3	313.1	313.7	313.1	312.3	311.2	310.9	311.2	312.3
34.5°	306.0	306.5	307.4	308.2	308.9	308.2	307.4	306.5	306.0	306.5	307.4
35°	301.2	301.6	302.6	303.4	304.1	303.4	302.6	301.6	301.2	301.6	302.6
35.5°	296.3	296.8	297.8	298.6	299.3	298.6	297.8	296.8	296.3	296.8	297.8
36°	291.5	291.9	292.9	293.7	294.3	293.7	292.9	291.9	291.5	291.9	292.9
36.5°	286.6	287.1	288.1	289.0	289.5	289.0	288.1	287.1	286.6	287.1	288.1
37°	281.7	282.2	283.3	284.0	284.6	284.0	283.3	282.2	281.7	282.2	283.3
37.5°	276.9	277.5	278.3	279.2	279.9	279.2	278.3	277.5	276.9	277.5	278.3
38°	272.0	272.5	273.6	274.4	274.9	274.4	273.6	272.5	272.0	272.5	273.6
38.5°	267.2	267.7	268.7	269.5	270.1	269.5	268.7	267.7	267.2	267.7	268.7
39°	262.4	262.9	264.0	264.8	265.4	264.8	264.0	262.9	262.4	262.9	264.0
39.5°	257.5	258.1	259.1	259.9	260.5	259.9	259.1	258.1	257.5	258.1	259.1
40°	252.9	253.3	254.3	255.1	255.7	255.1	254.3	253.3	252.9	253.3	254.3
40.5°	248.0	248.5	249.6	250.4	250.9	250.4	249.6	248.5	248.0	248.5	249.6
41°	243.3	243.8	244.8	245.6	246.2	245.6	244.8	243.8	243.3	243.8	244.8
41.5°	238.6	239.1	240.1	240.9	241.5	240.9	240.1	239.1	238.6	239.1	240.1
42°	233.8	234.4	235.5	236.1	236.7	236.1	235.5	234.4	233.8	234.4	235.5
42.5°	229.3	229.9	230.8	231.6	232.1	231.6	230.8	229.9	229.3	229.9	230.8
43°	224.7	225.2	226.2	227.0	227.4	227.0	226.2	225.2	224.7	225.2	226.2
43.5°	220.2	220.6	221.6	222.3	222.9	222.3	221.6	220.6	220.2	220.6	221.6
44°	215.6	216.1	217.1	217.8	218.3	217.8	217.1	216.1	215.6	216.1	217.1
44.5°	211.1	211.7	212.6	213.3	213.8	213.3	212.6	211.7	211.1	211.7	212.6

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	206.7	207.2	208.2	208.9	209.4	208.9	208.2	207.2	206.7	207.2	208.2
45.5°	202.4	202.8	203.7	204.4	204.9	204.4	203.7	202.8	202.4	202.8	203.7
46°	198.0	198.5	199.4	200.1	200.6	200.1	199.4	198.5	198.0	198.5	199.4
46.5°	193.7	194.2	195.1	195.8	196.3	195.8	195.1	194.2	193.7	194.2	195.1
47°	189.5	189.8	190.8	191.5	191.9	191.5	190.8	189.8	189.5	189.8	190.8
47.5°	185.3	185.7	186.6	187.3	187.8	187.3	186.6	185.7	185.3	185.7	186.6
48°	181.2	181.6	182.5	183.0	183.5	183.0	182.5	181.6	181.2	181.6	182.5
48.5°	177.0	177.4	178.3	179.0	179.5	179.0	178.3	177.4	177.0	177.4	178.3
49°	173.1	173.5	174.3	174.9	175.4	174.9	174.3	173.5	173.1	173.5	174.3
49.5°	169.0	169.5	170.4	170.9	171.4	170.9	170.4	169.5	169.0	169.5	170.4
50°	165.1	165.5	166.4	167.0	167.4	167.0	166.4	165.5	165.1	165.5	166.4
50.5°	161.2	161.7	162.4	163.0	163.5	163.0	162.4	161.7	161.2	161.7	162.4
51°	157.4	157.8	158.6	159.2	159.6	159.2	158.6	157.8	157.4	157.8	158.6
51.5°	153.6	154.0	154.8	155.4	155.9	155.4	154.8	154.0	153.6	154.0	154.8
52°	149.9	150.3	151.0	151.7	152.2	151.7	151.0	150.3	149.9	150.3	151.0
52.5°	146.3	146.7	147.3	148.0	148.4	148.0	147.3	146.7	146.3	146.7	147.3
53°	142.6	143.1	143.7	144.2	144.7	144.2	143.7	143.1	142.6	143.1	143.7
53.5°	139.1	139.5	140.1	140.7	141.1	140.7	140.1	139.5	139.1	139.5	140.1
54°	135.6	135.9	136.5	137.1	137.6	137.1	136.5	135.9	135.6	135.9	136.5
54.5°	132.2	132.5	133.1	133.7	134.1	133.7	133.1	132.5	132.2	132.5	133.1
55°	128.9	129.1	129.7	130.2	130.6	130.2	129.7	129.1	128.9	129.1	129.7
55.5°	125.6	125.8	126.3	126.8	127.2	126.8	126.3	125.8	125.6	125.8	126.3
56°	122.2	122.5	123.0	123.5	123.9	123.5	123.0	122.5	122.2	122.5	123.0
56.5°	119.0	119.2	119.7	120.2	120.6	120.2	119.7	119.2	119.0	119.2	119.7
57°	115.8	116.0	116.5	117.0	117.3	117.0	116.5	116.0	115.8	116.0	116.5
57.5°	112.7	112.8	113.3	113.8	114.2	113.8	113.3	112.8	112.7	112.8	113.3
58°	109.6	109.7	110.2	110.7	111.1	110.7	110.2	109.7	109.6	109.7	110.2
58.5°	106.6	106.7	107.1	107.6	108.0	107.6	107.1	106.7	106.6	106.7	107.1
59°	103.5	103.7	104.1	104.6	104.9	104.6	104.1	103.7	103.5	103.7	104.1
59.5°	100.6	100.7	101.2	101.6	101.9	101.6	101.2	100.7	100.6	100.7	101.2
60°	97.7	97.8	98.2	98.6	99.0	98.6	98.2	97.8	97.7	97.8	98.2
60.5°	94.9	95.0	95.3	95.8	96.0	95.8	95.3	95.0	94.9	95.0	95.3
61°	92.1	92.1	92.5	92.9	93.2	92.9	92.5	92.1	92.1	92.1	92.5
61.5°	89.3	89.4	89.8	90.2	90.4	90.2	89.8	89.4	89.3	89.4	89.8
62°	86.6	86.7	87.1	87.4	87.6	87.4	87.1	86.7	86.6	86.7	87.1
62.5°	83.9	84.0	84.4	84.6	84.8	84.6	84.4	84.0	83.9	84.0	84.4
63°	81.3	81.4	81.6	81.9	82.2	81.9	81.6	81.4	81.3	81.4	81.6
63.5°	78.7	78.8	79.1	79.3	79.6	79.3	79.1	78.8	78.7	78.8	79.1
64°	76.1	76.2	76.5	76.8	77.0	76.8	76.5	76.2	76.1	76.2	76.5
64.5°	73.6	73.7	74.0	74.2	74.5	74.2	74.0	73.7	73.6	73.7	74.0
65°	71.2	71.3	71.5	71.8	72.1	71.8	71.5	71.3	71.2	71.3	71.5
65.5°	68.8	68.9	69.1	69.4	69.7	69.4	69.1	68.9	68.8	68.9	69.1
66°	66.4	66.5	66.8	66.9	67.2	66.9	66.8	66.5	66.4	66.5	66.8
66.5°	63.9	64.1	64.3	64.6	64.9	64.6	64.3	64.1	63.9	64.1	64.3
67°	61.6	61.8	62.1	62.3	62.6	62.3	62.1	61.8	61.6	61.8	62.1



TEST NUMBER: P895713  
 CATALOG NUMBER: RAWZC409-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	59.4	59.5	59.8	60.0	60.3	60.0	59.8	59.5	59.4	59.5	59.8
68°	57.2	57.4	57.6	57.8	58.0	57.8	57.6	57.4	57.2	57.4	57.6
68.5°	54.9	55.1	55.4	55.6	55.8	55.6	55.4	55.1	54.9	55.1	55.4
69°	52.8	53.0	53.3	53.4	53.7	53.4	53.3	53.0	52.8	53.0	53.3
69.5°	50.7	50.9	51.2	51.4	51.6	51.4	51.2	50.9	50.7	50.9	51.2
70°	48.7	48.9	49.1	49.3	49.5	49.3	49.1	48.9	48.7	48.9	49.1
70.5°	46.6	46.8	47.1	47.3	47.5	47.3	47.1	46.8	46.6	46.8	47.1
71°	44.7	44.9	45.2	45.3	45.6	45.3	45.2	44.9	44.7	44.9	45.2
71.5°	42.8	43.0	43.2	43.4	43.7	43.4	43.2	43.0	42.8	43.0	43.2
72°	40.9	41.1	41.4	41.6	41.9	41.6	41.4	41.1	40.9	41.1	41.4
72.5°	39.1	39.3	39.6	39.8	40.1	39.8	39.6	39.3	39.1	39.3	39.6
73°	37.3	37.5	37.8	38.0	38.2	38.0	37.8	37.5	37.3	37.5	37.8
73.5°	35.7	35.8	36.0	36.3	36.5	36.3	36.0	35.8	35.7	35.8	36.0
74°	34.0	34.1	34.3	34.5	34.8	34.5	34.3	34.1	34.0	34.1	34.3
74.5°	32.3	32.4	32.6	32.9	33.2	32.9	32.6	32.4	32.3	32.4	32.6
75°	30.7	30.8	31.1	31.3	31.6	31.3	31.1	30.8	30.7	30.8	31.1
75.5°	29.1	29.2	29.5	29.8	30.1	29.8	29.5	29.2	29.1	29.2	29.5
76°	27.6	27.7	28.1	28.3	28.6	28.3	28.1	27.7	27.6	27.7	28.1
76.5°	26.1	26.2	26.6	26.9	27.2	26.9	26.6	26.2	26.1	26.2	26.6
77°	24.7	24.8	25.2	25.5	25.8	25.5	25.2	24.8	24.7	24.8	25.2
77.5°	23.3	23.4	23.9	24.3	24.6	24.3	23.9	23.4	23.3	23.4	23.9
78°	22.0	22.1	22.5	23.0	23.2	23.0	22.5	22.1	22.0	22.1	22.5
78.5°	20.6	20.8	21.3	21.7	22.0	21.7	21.3	20.8	20.6	20.8	21.3
79°	19.4	19.6	20.0	20.4	20.6	20.4	20.0	19.6	19.4	19.6	20.0
79.5°	18.3	18.5	18.8	19.1	19.3	19.1	18.8	18.5	18.3	18.5	18.8
80°	17.1	17.3	17.6	17.9	18.0	17.9	17.6	17.3	17.1	17.3	17.6
80.5°	16.1	16.3	16.4	16.6	16.8	16.6	16.4	16.3	16.1	16.3	16.4
81°	15.1	15.2	15.3	15.5	15.6	15.5	15.3	15.2	15.1	15.2	15.3
81.5°	14.1	14.1	14.1	14.2	14.4	14.2	14.1	14.1	14.1	14.1	14.1
82°	13.1	13.0	13.1	13.2	13.3	13.2	13.1	13.0	13.1	13.0	13.1
82.5°	12.0	12.0	12.0	12.1	12.2	12.1	12.0	12.0	12.0	12.0	12.0
83°	10.9	10.9	10.9	11.0	11.1	11.0	10.9	10.9	10.9	10.9	10.9
83.5°	10.0	10.0	10.0	10.0	10.1	10.0	10.0	10.0	10.0	10.0	10.0
84°	8.9	8.9	8.9	9.0	9.0	9.0	8.9	8.9	8.9	8.9	8.9
84.5°	7.9	7.9	7.9	8.0	8.0	8.0	7.9	7.9	7.9	7.9	7.9
85°	6.9	7.0	7.0	7.1	7.1	7.1	7.0	7.0	6.9	7.0	7.0
85.5°	5.9	6.0	6.0	6.1	6.2	6.1	6.0	6.0	5.9	6.0	6.0
86°	5.0	5.0	5.0	5.1	5.2	5.1	5.0	5.0	5.0	5.0	5.0
86.5°	4.1	4.1	4.3	4.4	4.5	4.4	4.3	4.1	4.1	4.1	4.3
87°	3.2	3.3	3.5	3.7	4.1	3.7	3.5	3.3	3.2	3.3	3.5
87.5°	2.3	2.6	2.8	3.2	3.5	3.2	2.8	2.6	2.3	2.6	2.8
88°	1.7	1.9	2.2	2.7	3.0	2.7	2.2	1.9	1.7	1.9	2.2
88.5°	1.2	1.3	1.7	2.2	2.5	2.2	1.7	1.3	1.2	1.3	1.7
89°	0.8	0.9	1.4	1.7	2.0	1.7	1.4	0.9	0.8	0.9	1.4
89.5°	0.3	0.6	0.9	1.4	1.5	1.4	0.9	0.6	0.3	0.6	0.9

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



TEST NUMBER: P895713  
CATALOG NUMBER: RAWZC409-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P895713  
 CATALOG NUMBER: RAWZC409-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	480.3	480.3	480.3	480.3	480.3	480.3
0.5°	480.2	480.6	480.2	480.1	480.2	480.3
1°	480.1	480.3	480.1	480.1	480.1	480.2
1.5°	479.9	480.3	479.9	479.8	480.0	480.0
2°	479.7	480.0	479.7	479.6	479.7	479.7
2.5°	479.4	479.6	479.4	479.3	479.4	479.4
3°	479.1	479.4	479.1	479.0	479.1	479.1
3.5°	478.5	478.8	478.5	478.5	478.6	478.6
4°	478.0	478.4	478.0	478.0	478.0	478.1
4.5°	477.3	477.7	477.3	477.3	477.4	477.5
5°	476.6	477.0	476.6	476.6	476.7	476.7
5.5°	476.0	476.3	476.0	476.0	476.0	476.2
6°	475.2	475.5	475.2	475.1	475.2	475.3
6.5°	474.2	474.6	474.2	474.3	474.3	474.4
7°	473.3	473.6	473.3	473.4	473.5	473.5
7.5°	472.3	472.6	472.3	472.3	472.4	472.5
8°	471.2	471.5	471.2	471.1	471.3	471.4
8.5°	470.1	470.4	470.1	470.0	470.1	470.2
9°	468.7	469.1	468.7	468.8	468.8	468.9
9.5°	467.5	467.7	467.5	467.5	467.6	467.6
10°	466.1	466.3	466.1	466.0	466.1	466.2
10.5°	464.6	464.8	464.6	464.6	464.7	464.7
11°	463.0	463.3	463.0	463.1	463.2	463.3
11.5°	461.5	461.7	461.5	461.6	461.6	461.6
12°	459.7	459.9	459.7	459.8	460.0	460.0
12.5°	458.1	458.3	458.1	458.1	458.3	458.3
13°	456.2	456.4	456.2	456.3	456.5	456.6
13.5°	454.4	454.6	454.4	454.5	454.6	454.7
14°	452.5	452.7	452.5	452.6	452.7	452.8
14.5°	450.5	450.7	450.5	450.6	450.7	450.8
15°	448.5	448.7	448.5	448.6	448.7	448.8
15.5°	446.4	446.7	446.4	446.5	446.6	446.7
16°	444.2	444.5	444.2	444.2	444.4	444.6
16.5°	442.0	442.3	442.0	442.1	442.2	442.3
17°	439.8	440.0	439.8	439.8	440.0	439.8
17.5°	437.5	437.8	437.5	437.4	437.6	437.7
18°	434.9	435.3	434.9	434.9	435.1	435.1
18.5°	432.5	432.8	432.5	432.5	432.4	432.6
19°	429.9	430.3	429.9	429.8	429.9	429.9
19.5°	427.3	427.7	427.3	427.2	427.0	427.2
20°	424.6	425.0	424.6	424.4	424.4	424.4
20.5°	421.7	422.2	421.7	421.6	421.4	421.4
21°	418.7	419.1	418.7	418.5	418.4	418.3
21.5°	415.7	416.2	415.7	415.5	415.4	415.2
22°	412.6	413.0	412.6	412.4	412.1	412.1

TEST NUMBER: P895713  
 CATALOG NUMBER: RAWZC409-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	409.4	409.8	409.4	409.1	408.8	408.6
23°	405.9	406.4	405.9	405.7	405.4	405.3
23.5°	402.6	403.0	402.6	402.2	402.1	401.8
24°	399.1	399.5	399.1	398.8	398.4	398.2
24.5°	395.5	396.0	395.5	395.1	394.7	394.5
25°	391.7	392.2	391.7	391.2	390.8	390.6
25.5°	388.0	388.5	388.0	387.5	387.1	386.8
26°	384.1	384.5	384.1	383.6	383.1	382.9
26.5°	380.1	380.7	380.1	379.6	379.1	378.7
27°	376.0	376.7	376.0	375.5	375.0	374.6
27.5°	371.9	372.5	371.9	371.4	370.8	370.4
28°	367.8	368.3	367.8	367.2	366.6	366.2
28.5°	363.5	363.9	363.5	362.9	362.2	361.8
29°	359.2	359.8	359.2	358.5	357.8	357.5
29.5°	354.8	355.4	354.8	354.3	353.4	353.0
30°	350.3	351.0	350.3	349.6	348.8	348.5
30.5°	345.8	346.4	345.8	345.2	344.3	343.9
31°	341.3	341.9	341.3	340.5	339.8	339.3
31.5°	336.7	337.2	336.7	336.0	335.0	334.6
32°	332.0	332.6	332.0	331.2	330.4	329.9
32.5°	327.3	327.9	327.3	326.5	325.6	325.1
33°	322.6	323.1	322.6	321.9	320.9	320.5
33.5°	317.8	318.4	317.8	317.1	316.1	315.8
34°	313.1	313.7	313.1	312.3	311.2	310.9
34.5°	308.2	308.9	308.2	307.4	306.5	306.0
35°	303.4	304.1	303.4	302.6	301.6	301.2
35.5°	298.6	299.3	298.6	297.8	296.8	296.3
36°	293.7	294.3	293.7	292.9	291.9	291.5
36.5°	289.0	289.5	289.0	288.1	287.1	286.6
37°	284.0	284.6	284.0	283.3	282.2	281.7
37.5°	279.2	279.9	279.2	278.3	277.5	276.9
38°	274.4	274.9	274.4	273.6	272.5	272.0
38.5°	269.5	270.1	269.5	268.7	267.7	267.2
39°	264.8	265.4	264.8	264.0	262.9	262.4
39.5°	259.9	260.5	259.9	259.1	258.1	257.5
40°	255.1	255.7	255.1	254.3	253.3	252.9
40.5°	250.4	250.9	250.4	249.6	248.5	248.0
41°	245.6	246.2	245.6	244.8	243.8	243.3
41.5°	240.9	241.5	240.9	240.1	239.1	238.6
42°	236.1	236.7	236.1	235.5	234.4	233.8
42.5°	231.6	232.1	231.6	230.8	229.9	229.3
43°	227.0	227.4	227.0	226.2	225.2	224.7
43.5°	222.3	222.9	222.3	221.6	220.6	220.2
44°	217.8	218.3	217.8	217.1	216.1	215.6
44.5°	213.3	213.8	213.3	212.6	211.7	211.1

TEST NUMBER: P895713  
 CATALOG NUMBER: RAWZC409-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	208.9	209.4	208.9	208.2	207.2	206.7
45.5°	204.4	204.9	204.4	203.7	202.8	202.4
46°	200.1	200.6	200.1	199.4	198.5	198.0
46.5°	195.8	196.3	195.8	195.1	194.2	193.7
47°	191.5	191.9	191.5	190.8	189.8	189.5
47.5°	187.3	187.8	187.3	186.6	185.7	185.3
48°	183.0	183.5	183.0	182.5	181.6	181.2
48.5°	179.0	179.5	179.0	178.3	177.4	177.0
49°	174.9	175.4	174.9	174.3	173.5	173.1
49.5°	170.9	171.4	170.9	170.4	169.5	169.0
50°	167.0	167.4	167.0	166.4	165.5	165.1
50.5°	163.0	163.5	163.0	162.4	161.7	161.2
51°	159.2	159.6	159.2	158.6	157.8	157.4
51.5°	155.4	155.9	155.4	154.8	154.0	153.6
52°	151.7	152.2	151.7	151.0	150.3	149.9
52.5°	148.0	148.4	148.0	147.3	146.7	146.3
53°	144.2	144.7	144.2	143.7	143.1	142.6
53.5°	140.7	141.1	140.7	140.1	139.5	139.1
54°	137.1	137.6	137.1	136.5	135.9	135.6
54.5°	133.7	134.1	133.7	133.1	132.5	132.2
55°	130.2	130.6	130.2	129.7	129.1	128.9
55.5°	126.8	127.2	126.8	126.3	125.8	125.6
56°	123.5	123.9	123.5	123.0	122.5	122.2
56.5°	120.2	120.6	120.2	119.7	119.2	119.0
57°	117.0	117.3	117.0	116.5	116.0	115.8
57.5°	113.8	114.2	113.8	113.3	112.8	112.7
58°	110.7	111.1	110.7	110.2	109.7	109.6
58.5°	107.6	108.0	107.6	107.1	106.7	106.6
59°	104.6	104.9	104.6	104.1	103.7	103.5
59.5°	101.6	101.9	101.6	101.2	100.7	100.6
60°	98.6	99.0	98.6	98.2	97.8	97.7
60.5°	95.8	96.0	95.8	95.3	95.0	94.9
61°	92.9	93.2	92.9	92.5	92.1	92.1
61.5°	90.2	90.4	90.2	89.8	89.4	89.3
62°	87.4	87.6	87.4	87.1	86.7	86.6
62.5°	84.6	84.8	84.6	84.4	84.0	83.9
63°	81.9	82.2	81.9	81.6	81.4	81.3
63.5°	79.3	79.6	79.3	79.1	78.8	78.7
64°	76.8	77.0	76.8	76.5	76.2	76.1
64.5°	74.2	74.5	74.2	74.0	73.7	73.6
65°	71.8	72.1	71.8	71.5	71.3	71.2
65.5°	69.4	69.7	69.4	69.1	68.9	68.8
66°	66.9	67.2	66.9	66.8	66.5	66.4
66.5°	64.6	64.9	64.6	64.3	64.1	63.9
67°	62.3	62.6	62.3	62.1	61.8	61.6

TEST NUMBER: P895713  
 CATALOG NUMBER: RAWZC409-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	60.0	60.3	60.0	59.8	59.5	59.4
68°	57.8	58.0	57.8	57.6	57.4	57.2
68.5°	55.6	55.8	55.6	55.4	55.1	54.9
69°	53.4	53.7	53.4	53.3	53.0	52.8
69.5°	51.4	51.6	51.4	51.2	50.9	50.7
70°	49.3	49.5	49.3	49.1	48.9	48.7
70.5°	47.3	47.5	47.3	47.1	46.8	46.6
71°	45.3	45.6	45.3	45.2	44.9	44.7
71.5°	43.4	43.7	43.4	43.2	43.0	42.8
72°	41.6	41.9	41.6	41.4	41.1	40.9
72.5°	39.8	40.1	39.8	39.6	39.3	39.1
73°	38.0	38.2	38.0	37.8	37.5	37.3
73.5°	36.3	36.5	36.3	36.0	35.8	35.7
74°	34.5	34.8	34.5	34.3	34.1	34.0
74.5°	32.9	33.2	32.9	32.6	32.4	32.3
75°	31.3	31.6	31.3	31.1	30.8	30.7
75.5°	29.8	30.1	29.8	29.5	29.2	29.1
76°	28.3	28.6	28.3	28.1	27.7	27.6
76.5°	26.9	27.2	26.9	26.6	26.2	26.1
77°	25.5	25.8	25.5	25.2	24.8	24.7
77.5°	24.3	24.6	24.3	23.9	23.4	23.3
78°	23.0	23.2	23.0	22.5	22.1	22.0
78.5°	21.7	22.0	21.7	21.3	20.8	20.6
79°	20.4	20.6	20.4	20.0	19.6	19.4
79.5°	19.1	19.3	19.1	18.8	18.5	18.3
80°	17.9	18.0	17.9	17.6	17.3	17.1
80.5°	16.6	16.8	16.6	16.4	16.3	16.1
81°	15.5	15.6	15.5	15.3	15.2	15.1
81.5°	14.2	14.4	14.2	14.1	14.1	14.1
82°	13.2	13.3	13.2	13.1	13.0	13.1
82.5°	12.1	12.2	12.1	12.0	12.0	12.0
83°	11.0	11.1	11.0	10.9	10.9	10.9
83.5°	10.0	10.1	10.0	10.0	10.0	10.0
84°	9.0	9.0	9.0	8.9	8.9	8.9
84.5°	8.0	8.0	8.0	7.9	7.9	7.9
85°	7.1	7.1	7.1	7.0	7.0	6.9
85.5°	6.1	6.2	6.1	6.0	6.0	5.9
86°	5.1	5.2	5.1	5.0	5.0	5.0
86.5°	4.4	4.5	4.4	4.3	4.1	4.1
87°	3.7	4.1	3.7	3.5	3.3	3.2
87.5°	3.2	3.5	3.2	2.8	2.6	2.3
88°	2.7	3.0	2.7	2.2	1.9	1.7
88.5°	2.2	2.5	2.2	1.7	1.3	1.2
89°	1.7	2.0	1.7	1.4	0.9	0.8
89.5°	1.4	1.5	1.4	0.9	0.6	0.3

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



TEST NUMBER: P895713  
CATALOG NUMBER: RAWZC409-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)