

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO

Report Number: P639502

Luminaire Tested: RL56LS9FSD2W1EWH -900LM -4000K

Issue Date: 1/25/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P639502  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2206549B001)  
Test Lab:  
Issue Date: 1/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: RL56LS9FSD2W1EWH -900LM -4000K  
Description: 5/6IN RETROFIT, SELECTABLE LUMEN AND CCT, MATTE WHITE BAFFLE  
Light Source: (1) SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

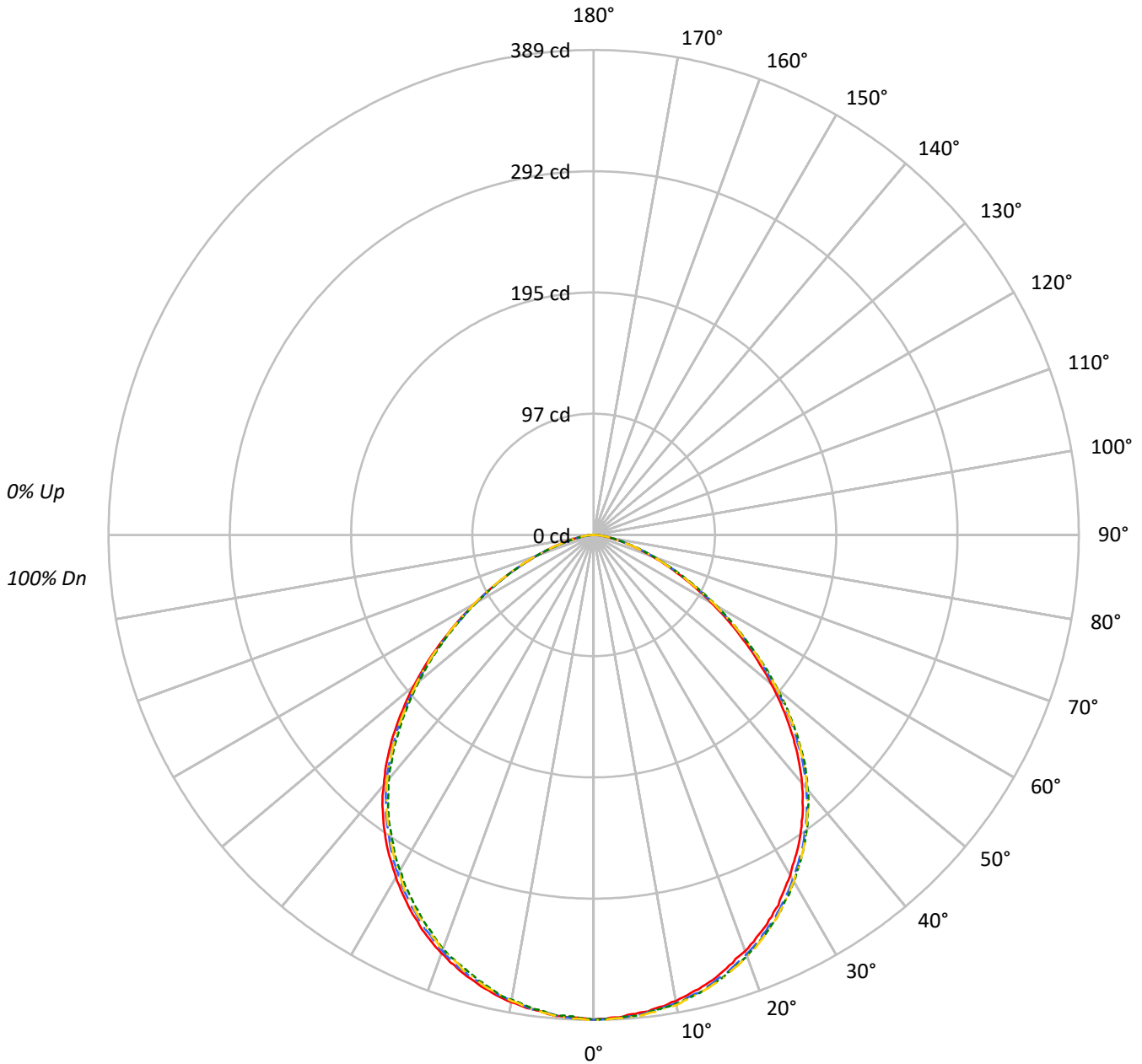
Lumens per Lamp: N/A  
Luminaire Lumens: 900.0 lumens  
Efficiency: N/A  
Efficacy: 103.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.3  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 8.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	74																			
3	93	84	76	70	91	82	75	70	79	73	69	76	72	67	74	70	66	64																			
4	86	75	67	61	84	73	66	60	71	65	59	69	63	59	67	62	58	56																			
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49																			
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43																			
7	68	55	47	41	67	55	47	41	53	46	41	52	45	41	50	45	40	39																			
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	46	41	36	35																			
9	60	47	39	34	58	46	39	34	45	38	33	44	38	33	43	37	33	31																			
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	28																			

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

	0°	90°	180°	270°
0°	21314	21314	21314	21314
5°	21219	21302	21269	21247
10°	21142	21248	21186	21081
15°	20971	21164	21027	20851
20°	20722	20973	20833	20611
25°	20439	20699	20499	20130
30°	19952	20351	20073	19668
35°	19381	19823	19521	19073
40°	18585	19114	18735	18284
45°	17413	17994	17614	17072
50°	15846	16417	16051	15590
55°	13992	14489	14164	13897
60°	11995	12466	12082	11918
65°	9923	10312	9910	9897
70°	7934	8319	7790	7742
75°	5994	6397	5740	5528
80°	4451	4704	4072	3883
85°	3963	4151	3271	2956

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 112.5°  
 Vertical Angle: 45°  
 Luminance: 18017 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.7	4.1
10°-20°	104.4	11.6
20°-30°	155.7	17.3
30°-40°	181.7	20.2
40°-50°	174.1	19.3
50°-60°	132.7	14.7
60°-70°	77.3	8.6
70°-80°	30.8	3.4
80°-90°	6.5	0.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	296.9	33.0
0°-40°	478.6	53.2
0°-60°	785.4	87.3
0°-90°	900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	900.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	389	389	389	389	389	
5°	386	387	386	386	386	37
15°	370	373	370	367	370	104
25°	338	342	339	333	338	155
35°	290	296	292	285	290	181
45°	225	232	227	220	225	173
55°	146	152	148	145	146	131
65°	76	80	76	76	76	77
75°	28	30	27	26	28	31
85°	6	7	5	5	6	7
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°	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8	388.8
0.5°	388.3	388.8	388.8	388.9	388.6	388.8	389.1	388.5	388.3	388.7	388.7
1°	388.2	388.7	388.5	388.6	388.6	388.7	389.4	389.0	388.0	388.7	388.4
1.5°	388.2	388.6	388.3	388.8	388.5	388.6	389.1	389.2	387.5	388.5	388.2
2°	387.5	388.4	388.1	388.8	388.4	387.9	388.3	389.1	387.5	388.6	388.5
2.5°	387.4	388.8	388.2	388.5	388.3	388.3	388.3	388.3	387.4	388.3	388.2
3°	387.5	388.4	388.1	388.9	387.9	388.5	388.3	388.3	387.3	387.9	387.5
3.5°	387.2	388.0	387.7	388.9	387.3	388.5	388.3	388.5	387.3	388.1	387.7
4°	386.1	387.5	387.6	388.5	387.3	388.6	388.1	387.4	386.9	388.6	386.6
4.5°	385.7	387.1	387.1	387.5	387.1	388.4	388.0	387.0	387.2	388.0	386.6
5°	385.6	387.3	386.7	387.5	387.1	387.9	387.6	387.0	386.5	386.7	385.7
5.5°	384.8	387.2	386.7	387.1	387.2	386.8	387.5	386.9	385.9	386.5	385.1
6°	384.8	386.5	386.4	386.6	386.8	386.6	386.9	386.3	385.0	386.4	385.0
6.5°	384.7	385.3	385.2	386.3	385.6	385.9	386.2	385.5	384.4	385.1	384.7
7°	383.7	385.0	385.0	385.7	384.6	385.6	385.8	385.1	384.0	385.0	384.1
7.5°	382.9	384.1	384.3	385.4	384.1	384.5	385.7	384.9	383.4	384.3	383.6
8°	382.3	383.5	383.7	384.5	384.1	383.9	384.7	384.1	383.3	383.3	382.5
8.5°	382.1	382.9	382.9	384.3	383.2	383.9	384.1	383.9	382.6	382.7	381.8
9°	381.1	382.7	382.6	383.1	383.1	383.3	383.5	383.1	381.7	382.1	381.2
9.5°	379.9	382.0	381.9	382.9	382.5	382.4	383.4	382.6	381.0	381.9	380.5
10°	379.8	380.9	381.4	382.1	381.7	381.8	382.8	381.5	380.6	380.8	380.1
10.5°	378.5	380.6	380.4	381.1	381.6	381.5	382.0	380.7	380.0	380.5	378.7
11°	377.7	379.4	379.7	380.9	380.1	380.0	380.5	380.0	379.0	378.7	377.6
11.5°	376.8	378.3	378.5	379.4	379.3	379.2	380.0	378.7	378.1	378.4	376.9
12°	375.5	377.7	377.7	378.5	378.6	379.2	379.5	378.0	377.2	377.2	376.0
12.5°	374.4	376.7	377.0	377.8	377.7	378.6	378.0	377.3	376.3	376.5	374.9
13°	374.1	375.6	376.9	376.6	377.2	377.5	377.3	376.0	375.1	376.0	373.9
13.5°	372.7	374.0	375.3	376.0	376.0	376.5	376.1	375.5	374.3	374.5	372.4
14°	371.7	373.1	373.9	374.6	375.1	375.3	375.2	374.3	373.3	372.7	371.4
14.5°	370.5	372.7	372.7	373.9	373.6	374.9	374.2	373.3	371.8	371.9	369.9
15°	369.5	371.5	371.5	373.0	372.9	373.1	373.0	371.9	370.5	370.5	369.3
15.5°	368.2	369.4	369.9	371.9	371.3	371.8	372.1	370.7	369.4	369.3	368.1
16°	366.6	368.2	368.8	370.3	370.4	370.7	371.0	369.9	368.5	367.7	366.8
16.5°	365.1	367.3	367.7	368.8	369.0	369.1	369.7	368.5	367.0	366.7	365.1
17°	363.8	365.4	366.8	367.9	367.1	368.3	367.8	366.8	365.7	365.2	364.3
17.5°	362.1	364.9	365.1	365.9	366.5	366.9	366.8	365.7	364.3	363.6	363.1
18°	360.9	363.2	363.7	364.3	365.0	365.1	365.3	365.3	362.5	362.7	361.2
18.5°	358.5	360.9	362.2	364.1	363.3	364.2	364.3	363.1	361.7	361.4	359.6
19°	357.7	359.8	360.7	362.3	362.3	362.9	362.9	361.5	359.9	359.4	358.3
19.5°	356.5	358.4	359.6	360.1	360.8	361.1	361.1	360.2	358.3	357.7	356.7
20°	355.2	357.6	358.0	358.9	359.5	359.5	359.6	358.3	357.1	356.9	354.9
20.5°	353.7	355.7	356.5	357.5	357.5	358.0	358.5	356.7	355.3	354.6	353.7
21°	351.7	354.4	354.9	355.7	356.3	356.5	357.3	355.4	353.9	353.2	351.4



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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°	346.7	349.1	349.7	351.6	350.9	351.8	351.7	350.2	348.6	347.9	345.7
23°	345.1	347.2	347.7	349.2	349.9	350.4	349.7	348.5	346.7	345.6	344.3
23.5°	343.4	345.5	346.5	347.5	347.6	348.6	347.9	346.8	345.2	343.8	342.8
24°	341.7	343.4	344.2	345.3	346.0	346.8	346.1	345.1	343.1	342.3	340.7
24.5°	339.1	341.3	342.7	343.7	343.9	344.9	344.4	342.9	340.7	340.7	338.3
25°	337.9	339.5	341.3	341.8	342.2	342.6	342.4	341.1	338.9	338.3	336.1
25.5°	335.2	337.6	339.0	340.1	340.5	340.4	340.5	338.9	337.1	335.7	333.9
26°	333.4	335.5	336.7	338.0	338.6	338.5	338.5	336.6	335.0	333.9	332.3
26.5°	332.1	333.3	334.8	335.7	336.5	337.0	336.1	334.5	332.9	332.1	329.9
27°	328.7	331.6	332.5	333.9	334.1	334.7	334.0	333.0	330.5	329.7	327.7
27.5°	326.5	329.7	330.3	331.7	331.7	332.3	332.2	330.6	328.5	327.7	325.7
28°	324.2	326.9	328.0	329.6	329.7	330.0	329.5	328.3	326.2	325.6	323.5
28.5°	321.9	324.5	326.2	327.2	328.3	327.6	327.5	325.9	324.1	323.2	321.1
29°	319.6	322.2	323.9	324.7	325.9	325.5	325.2	323.8	321.5	320.9	318.7
29.5°	317.5	320.1	321.5	322.8	323.1	323.1	322.9	321.5	319.6	318.1	316.4
30°	315.2	318.2	319.2	320.5	321.5	320.9	320.9	319.1	317.1	315.6	313.5
30.5°	312.4	315.8	317.0	318.1	318.9	318.7	318.1	316.7	314.6	313.6	311.7
31°	309.6	312.8	314.5	315.8	315.9	316.3	315.8	314.3	312.2	311.2	309.1
31.5°	307.4	310.9	312.1	313.4	313.7	313.8	313.7	311.9	309.7	309.0	306.9
32°	305.1	308.5	309.8	310.8	311.4	312.0	311.4	309.5	307.3	306.8	304.2
32.5°	302.8	305.8	307.3	308.5	309.1	309.0	309.0	307.0	305.2	303.6	301.6
33°	300.4	303.2	305.0	305.9	306.6	306.6	306.2	304.4	302.6	301.1	299.1
33.5°	297.8	300.8	302.6	303.5	304.2	304.1	304.0	301.8	300.0	298.4	296.2
34°	295.3	298.2	300.1	301.2	301.4	301.3	301.3	299.4	297.5	295.8	293.3
34.5°	292.5	295.1	297.4	298.7	299.0	298.8	298.7	297.2	294.6	293.0	290.4
35°	289.6	292.9	294.5	296.3	296.2	296.4	295.6	294.4	291.7	290.4	287.8
35.5°	287.2	290.1	291.8	293.1	293.6	293.9	292.9	292.3	289.3	288.0	285.4
36°	283.9	287.2	289.2	290.2	291.2	291.5	289.9	288.9	286.5	285.2	282.4
36.5°	281.5	284.6	286.3	287.7	288.4	288.6	287.2	285.6	283.5	282.3	279.9
37°	278.6	281.3	283.7	285.0	284.6	285.6	284.4	283.2	280.6	279.4	276.8
37.5°	275.6	278.8	280.6	281.4	282.1	281.9	281.4	280.0	277.8	276.2	273.8
38°	272.1	275.5	277.6	278.6	279.1	279.4	279.6	276.8	275.2	273.2	270.6
38.5°	269.3	272.7	274.1	275.3	276.6	276.0	276.2	273.7	272.1	269.9	267.7
39°	266.4	269.4	271.4	272.4	273.6	273.8	272.6	271.1	269.2	267.4	264.5
39.5°	263.0	266.5	268.4	269.6	270.7	270.8	269.3	268.0	265.2	263.8	261.2
40°	259.7	264.0	265.4	266.6	267.1	267.1	266.0	264.8	261.8	261.0	258.2
40.5°	256.8	260.0	262.2	263.2	263.5	263.8	263.2	260.8	258.8	258.2	255.0
41°	253.3	256.4	258.6	260.1	260.8	260.9	259.9	258.3	255.2	254.3	251.8
41.5°	249.9	252.9	255.2	256.7	257.4	257.6	256.4	255.4	252.4	250.5	248.0
42°	246.4	249.7	252.0	253.2	254.1	253.4	253.0	251.2	248.8	247.3	244.7
42.5°	242.8	246.0	248.4	249.2	251.2	250.5	249.3	247.7	245.2	244.0	241.1
43°	239.4	242.4	244.5	245.8	247.3	246.7	246.0	244.0	241.7	240.3	237.7
43.5°	235.8	238.8	241.0	242.5	243.6	243.3	242.0	240.3	238.2	236.7	234.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	224.6	227.7	230.1	230.9	232.1	232.4	231.0	229.4	227.2	225.4	223.3
45.5°	220.9	224.0	225.8	227.4	228.6	228.5	227.7	225.6	223.2	221.6	219.7
46°	217.2	220.0	222.4	223.8	224.4	224.4	223.6	221.7	219.5	218.0	215.9
46.5°	213.1	216.0	218.5	219.9	221.0	220.5	219.6	217.9	215.6	214.0	211.8
47°	209.8	212.1	214.3	215.4	216.6	216.8	215.4	213.8	212.0	210.2	208.2
47.5°	205.4	208.4	210.5	211.2	212.8	212.7	211.6	210.2	207.5	206.6	204.0
48°	201.7	204.3	206.6	207.2	209.1	208.6	207.7	206.4	204.0	202.8	200.3
48.5°	197.9	200.4	202.4	203.6	204.7	204.6	204.0	202.0	200.1	198.9	196.3
49°	193.7	196.2	198.4	199.5	200.7	200.4	199.4	198.1	196.3	194.9	192.6
49.5°	190.0	192.2	194.5	195.8	196.7	196.6	195.6	194.2	192.3	190.8	188.6
50°	185.8	188.1	190.3	191.2	192.5	192.8	191.4	190.0	188.2	186.8	184.9
50.5°	182.1	184.6	186.2	187.5	188.3	188.5	187.3	185.8	184.1	182.9	181.0
51°	178.0	180.6	182.0	183.5	184.6	183.8	183.5	182.0	180.2	179.4	177.4
51.5°	174.1	176.6	178.3	179.2	180.8	180.2	179.5	178.0	176.4	174.8	173.2
52°	169.7	172.3	174.1	175.5	176.7	176.1	175.2	174.1	172.6	171.2	169.2
52.5°	166.0	168.0	170.0	171.2	172.2	172.0	171.3	170.2	168.4	167.3	165.4
53°	162.1	164.1	165.9	167.2	167.8	168.4	167.1	165.8	164.2	163.0	161.6
53.5°	158.1	160.2	162.1	163.3	164.0	163.9	163.1	161.9	160.2	159.3	157.8
54°	154.2	156.1	158.4	159.1	159.8	159.7	158.9	158.1	156.4	155.2	153.8
54.5°	150.6	152.4	154.1	155.3	155.8	155.8	155.0	154.2	152.4	151.4	150.0
55°	146.4	148.3	150.1	151.3	151.6	151.7	151.0	150.0	148.2	147.3	146.0
55.5°	142.6	144.4	146.2	147.3	147.8	147.8	146.9	145.9	144.4	143.3	142.4
56°	138.8	140.5	142.4	143.4	143.9	143.7	142.8	142.1	140.4	139.5	138.6
56.5°	135.1	136.8	138.5	139.6	140.1	139.8	138.9	138.0	136.8	136.0	134.8
57°	131.3	132.8	134.8	135.5	136.2	135.8	135.4	134.1	132.8	131.9	131.2
57.5°	127.4	129.2	131.2	131.8	132.2	132.0	131.2	130.2	128.9	128.1	127.2
58°	123.6	125.5	127.3	128.1	128.5	128.2	127.4	126.4	125.1	124.4	123.4
58.5°	120.1	121.4	123.3	124.2	125.0	124.6	123.5	122.4	121.2	120.6	119.8
59°	116.4	117.8	119.7	120.2	121.2	120.8	119.8	118.9	117.6	116.8	116.1
59.5°	112.9	114.1	115.8	116.8	117.0	116.7	116.3	115.0	113.7	113.2	112.6
60°	109.4	110.4	112.3	113.3	113.7	113.0	112.4	111.4	110.2	109.7	109.1
60.5°	105.8	107.0	108.8	109.5	110.2	109.7	108.8	107.7	106.6	106.1	105.5
61°	102.3	103.4	105.3	106.1	106.6	106.0	105.0	104.0	102.9	102.4	102.0
61.5°	99.1	100.0	101.7	102.5	103.0	102.4	101.5	100.5	99.5	98.9	98.3
62°	95.6	96.6	98.2	98.9	99.7	98.8	97.9	96.9	95.9	95.5	95.1
62.5°	92.1	93.3	94.7	95.5	96.1	95.4	94.5	93.8	92.5	92.0	91.7
63°	88.9	90.0	91.4	92.1	92.7	91.8	91.1	90.0	89.2	88.8	88.3
63.5°	85.7	86.8	88.1	89.0	89.1	88.7	87.7	86.7	86.0	85.6	85.3
64°	82.5	83.6	85.0	85.8	86.0	85.5	84.5	83.4	82.7	82.3	82.2
64.5°	79.5	80.5	81.9	82.5	82.9	82.2	81.3	80.3	79.4	79.2	78.8
65°	76.5	77.5	78.7	79.3	79.5	79.0	78.0	77.3	76.4	76.3	75.7
65.5°	73.5	74.3	75.7	76.3	76.5	75.9	75.1	74.1	73.3	72.9	72.9
66°	70.5	71.5	72.7	73.3	73.5	72.8	71.9	70.9	70.2	70.0	69.7





TEST NUMBER: P639502

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	62.3	63.2	64.4	65.0	64.6	64.1	63.3	62.4	61.6	61.3	61.2
68°	59.7	60.5	61.6	62.3	62.0	61.4	60.5	59.5	58.8	58.7	58.5
68.5°	57.1	58.0	58.9	59.6	59.3	58.7	57.7	56.7	56.0	56.0	55.7
69°	54.5	55.4	56.3	56.9	56.7	56.1	55.1	54.3	53.5	53.3	53.0
69.5°	51.9	52.9	53.8	54.3	54.4	53.6	52.7	51.7	50.9	50.7	50.5
70°	49.5	50.4	51.5	51.8	51.9	51.3	50.3	49.3	48.6	48.3	48.2
70.5°	47.2	48.0	48.9	49.4	49.5	48.9	48.0	47.0	46.3	46.0	45.8
71°	44.8	45.7	46.5	47.1	47.2	46.5	45.6	44.7	43.9	43.7	43.5
71.5°	42.4	43.4	44.1	44.6	44.9	44.1	43.2	42.5	41.5	41.2	41.1
72°	40.3	41.0	41.8	42.3	42.7	41.9	40.9	40.1	39.3	39.1	38.9
72.5°	37.9	38.7	39.6	39.9	40.3	39.8	38.8	37.9	37.3	36.9	36.7
73°	35.8	36.7	37.3	37.7	38.2	37.5	36.6	35.7	35.1	34.7	34.5
73.5°	33.8	34.7	35.3	35.6	36.1	35.5	34.5	33.7	32.9	32.7	32.4
74°	31.9	32.7	33.3	33.5	34.2	33.4	32.5	31.7	30.9	30.5	30.3
74.5°	30.0	30.8	31.3	31.6	32.1	31.3	30.5	29.7	29.0	28.7	28.5
75°	28.3	29.0	29.5	29.7	30.2	29.5	28.7	27.9	27.1	26.7	26.7
75.5°	26.4	27.1	27.8	27.9	28.3	27.8	26.8	26.1	25.3	25.0	24.9
76°	24.8	25.5	25.9	26.1	26.5	25.9	25.1	24.4	23.7	23.3	23.1
76.5°	23.2	23.9	24.3	24.4	24.9	24.3	23.4	22.6	21.9	21.6	21.4
77°	21.7	22.3	22.7	22.9	23.2	22.6	21.8	21.1	20.3	20.1	19.9
77.5°	20.2	20.8	21.3	21.3	21.7	21.1	20.3	19.6	18.9	18.5	18.4
78°	18.8	19.3	19.8	19.9	20.1	19.6	18.9	18.2	17.6	17.1	16.9
78.5°	17.5	18.1	18.5	18.5	18.7	18.1	17.5	16.9	16.2	15.9	15.7
79°	16.3	16.9	17.1	17.1	17.3	16.9	16.1	15.8	15.1	14.7	14.6
79.5°	15.3	15.8	16.1	16.1	16.0	15.7	15.2	14.5	13.9	13.6	13.4
80°	14.1	14.7	14.9	14.9	14.9	14.6	14.0	13.4	12.9	12.6	12.3
80.5°	13.1	13.6	13.9	13.9	13.9	13.5	12.9	12.5	11.9	11.6	11.3
81°	12.2	12.7	12.9	12.9	12.8	12.5	11.9	11.5	11.0	10.7	10.4
81.5°	11.3	11.7	11.9	11.9	11.7	11.5	10.9	10.5	10.1	9.9	9.7
82°	10.5	10.8	11.1	11.0	10.9	10.5	10.1	9.7	9.4	9.1	8.9
82.5°	9.7	10.1	10.3	10.2	10.0	9.7	9.5	9.0	8.7	8.4	8.1
83°	9.0	9.3	9.6	9.6	9.3	9.0	8.7	8.4	7.9	7.7	7.4
83.5°	8.3	8.6	8.9	8.9	8.5	8.3	8.0	7.6	7.3	6.9	6.7
84°	7.7	7.9	8.2	8.2	7.9	7.7	7.3	6.9	6.5	6.3	6.0
84.5°	6.9	7.3	7.5	7.5	7.3	7.1	6.7	6.3	5.9	5.6	5.3
85°	6.3	6.6	6.9	6.9	6.6	6.4	5.9	5.7	5.2	4.9	4.5
85.5°	5.5	5.9	6.2	6.2	5.9	5.7	5.4	4.9	4.5	4.3	3.9
86°	4.9	5.3	5.5	5.5	5.3	5.1	4.7	4.3	3.9	3.5	3.5
86.5°	4.2	4.6	4.9	4.9	4.7	4.4	4.1	3.7	3.5	2.9	2.6
87°	3.5	4.0	4.2	4.3	4.1	3.9	3.5	3.0	2.6	2.3	1.9
87.5°	2.9	3.4	3.6	3.7	3.5	3.4	2.8	2.5	2.0	1.6	1.4
88°	2.3	2.7	3.0	3.1	2.8	2.6	2.2	1.7	1.3	1.1	0.7
88.5°	1.7	2.1	2.3	2.4	2.2	1.9	1.6	1.2	0.8	0.4	0.3



TEST NUMBER: P639502  
CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.1	0.4	0.7	0.7	0.5	0.4	0.1	0.0	0.0	0.0	0.0



TEST NUMBER: P639502

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	388.8	388.8	388.8	388.8	388.8	388.8
0.5°	388.5	388.4	388.9	389.3	388.3	388.3
1°	388.2	387.9	388.1	388.8	388.5	388.2
1.5°	388.1	387.7	387.9	388.3	389.0	388.2
2°	388.0	387.3	387.9	388.3	389.0	387.5
2.5°	387.3	386.6	387.6	388.4	388.1	387.4
3°	387.3	386.6	387.1	388.0	387.7	387.5
3.5°	387.3	386.3	387.1	387.7	387.5	387.2
4°	387.1	386.6	386.7	387.1	387.3	386.1
4.5°	386.8	386.5	386.9	386.9	386.7	385.7
5°	387.0	386.1	385.5	386.5	386.0	385.6
5.5°	386.6	385.1	385.5	385.5	385.1	384.8
6°	384.7	384.1	384.5	385.4	385.1	384.8
6.5°	383.9	383.5	384.4	384.6	383.9	384.7
7°	383.5	383.4	383.8	383.9	383.7	383.7
7.5°	383.0	382.4	382.1	383.6	383.2	382.9
8°	382.9	381.9	381.7	382.7	382.7	382.3
8.5°	381.5	380.8	381.1	381.9	382.0	382.1
9°	380.9	380.1	379.7	380.7	381.1	381.1
9.5°	380.3	379.1	379.3	380.1	380.6	379.9
10°	379.4	378.7	379.2	379.6	379.7	379.8
10.5°	378.3	377.9	377.9	378.4	379.0	378.5
11°	378.2	377.7	377.6	377.6	377.2	377.7
11.5°	376.9	376.7	376.7	376.4	376.6	376.8
12°	376.4	375.1	374.5	375.3	375.8	375.5
12.5°	374.7	373.9	373.3	374.5	374.4	374.4
13°	373.1	372.6	372.7	373.7	373.5	374.1
13.5°	372.3	371.3	372.1	372.6	372.5	372.7
14°	371.7	369.9	370.7	371.3	371.4	371.7
14.5°	370.2	369.1	369.3	369.8	369.5	370.5
15°	368.9	367.4	368.5	368.1	369.2	369.5
15.5°	367.2	365.9	366.4	366.9	367.7	368.2
16°	365.8	364.5	365.1	365.1	366.1	366.6
16.5°	364.7	363.1	363.7	365.1	364.7	365.1
17°	363.3	361.7	362.5	363.3	363.9	363.8
17.5°	361.9	360.7	361.5	360.8	361.9	362.1
18°	360.8	358.9	359.7	359.7	360.0	360.9
18.5°	358.5	358.0	357.3	357.9	358.9	358.5
19°	357.3	356.6	355.9	357.4	357.4	357.7
19.5°	355.7	354.7	354.3	355.1	356.1	356.5
20°	354.0	353.3	352.6	353.7	354.4	355.2
20.5°	351.7	351.5	351.1	352.5	353.0	353.7
21°	350.3	349.5	349.5	350.1	350.7	351.7

TEST NUMBER: P639502

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	345.3	343.1	343.5	344.9	345.0	346.7
23°	343.1	341.5	341.5	343.1	343.9	345.1
23.5°	341.5	339.4	339.9	341.0	341.8	343.4
24°	339.3	337.7	337.9	338.5	339.6	341.7
24.5°	337.3	335.2	335.9	337.0	337.9	339.1
25°	335.1	332.8	333.7	335.3	336.1	337.9
25.5°	332.8	331.2	331.4	333.0	333.9	335.2
26°	331.0	329.0	329.6	330.7	332.2	333.4
26.5°	328.9	326.6	327.7	328.5	329.6	332.1
27°	326.5	324.6	325.1	326.5	327.5	328.7
27.5°	324.2	322.3	322.7	324.5	325.5	326.5
28°	322.1	320.7	320.7	323.0	323.1	324.2
28.5°	319.9	318.1	318.4	320.1	320.7	321.9
29°	317.3	315.6	316.1	317.7	318.4	319.6
29.5°	314.7	312.7	313.7	314.9	316.1	317.5
30°	312.4	310.7	310.9	312.8	313.9	315.2
30.5°	310.0	308.3	308.7	310.5	311.3	312.4
31°	307.7	306.1	306.1	308.2	308.8	309.6
31.5°	305.4	303.7	303.6	305.3	306.4	307.4
32°	302.3	301.1	300.9	302.7	304.1	305.1
32.5°	299.6	298.4	298.3	299.8	301.6	302.8
33°	297.0	295.1	295.9	297.5	299.1	300.4
33.5°	294.4	293.0	293.4	295.0	296.4	297.8
34°	292.0	289.9	290.6	292.1	293.8	295.3
34.5°	289.4	287.4	288.0	289.8	291.2	292.5
35°	286.9	285.0	285.3	287.0	288.6	289.6
35.5°	284.0	282.6	282.6	284.0	285.4	287.2
36°	280.7	279.7	280.1	281.6	283.0	283.9
36.5°	278.2	276.8	276.8	278.5	279.7	281.5
37°	275.7	274.0	273.6	275.8	277.3	278.6
37.5°	272.7	270.8	270.9	272.5	274.4	275.6
38°	269.4	267.6	268.2	269.6	271.4	272.1
38.5°	266.4	264.4	265.4	266.8	268.0	269.3
39°	263.3	261.4	262.0	263.6	264.9	266.4
39.5°	259.7	258.8	259.0	260.8	261.7	263.0
40°	256.7	255.5	255.5	257.6	258.7	259.7
40.5°	253.6	252.4	252.8	254.3	255.2	256.8
41°	249.9	248.8	249.4	251.1	252.0	253.3
41.5°	247.0	244.8	246.2	247.8	248.8	249.9
42°	243.7	241.5	243.1	244.1	245.3	246.4
42.5°	239.8	238.4	239.2	240.5	242.2	242.8
43°	236.4	235.0	235.3	237.2	238.5	239.4
43.5°	232.6	231.6	231.6	233.6	235.0	235.8



TEST NUMBER: P639502

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	222.1	220.2	221.0	222.7	224.0	224.6
45.5°	218.3	216.6	217.3	219.1	219.9	220.9
46°	214.5	213.0	213.6	215.9	216.8	217.2
46.5°	210.5	209.4	210.4	211.7	212.6	213.1
47°	207.0	205.6	206.2	207.9	209.0	209.8
47.5°	203.1	201.8	202.8	204.4	204.8	205.4
48°	199.4	198.2	198.7	200.8	201.3	201.7
48.5°	195.4	194.3	195.2	196.4	197.2	197.9
49°	191.2	190.4	191.6	193.0	193.4	193.7
49.5°	187.5	186.8	187.7	189.2	189.3	190.0
50°	184.1	182.8	184.4	185.4	185.3	185.8
50.5°	179.8	179.1	180.2	181.6	182.0	182.1
51°	176.0	175.4	176.7	177.7	178.1	178.0
51.5°	172.1	171.8	172.4	174.0	174.1	174.1
52°	168.4	167.8	168.8	170.1	169.8	169.7
52.5°	164.5	164.2	165.2	166.2	166.0	166.0
53°	160.9	160.2	161.7	162.6	162.4	162.1
53.5°	157.0	156.4	157.6	158.6	158.5	158.1
54°	153.2	152.8	153.7	155.1	154.4	154.2
54.5°	149.5	148.8	149.6	151.2	150.8	150.6
55°	145.8	145.4	146.2	147.2	146.8	146.4
55.5°	142.0	141.4	142.5	143.2	143.0	142.6
56°	138.4	137.8	138.5	139.6	139.2	138.8
56.5°	134.6	133.8	134.8	136.1	135.7	135.1
57°	131.0	130.4	131.4	132.3	131.9	131.3
57.5°	127.2	126.4	127.8	128.4	127.9	127.4
58°	123.4	122.8	124.0	124.7	124.3	123.6
58.5°	119.9	119.3	120.3	121.2	120.5	120.1
59°	116.3	115.9	116.6	117.6	116.9	116.4
59.5°	112.6	112.2	113.3	114.0	113.4	112.9
60°	109.2	108.7	109.6	110.6	109.8	109.4
60.5°	105.8	105.2	106.1	107.0	106.4	105.8
61°	102.4	101.9	102.8	103.4	103.0	102.3
61.5°	98.7	98.7	99.5	100.1	99.5	99.1
62°	95.3	95.1	96.1	96.5	95.9	95.6
62.5°	92.1	91.9	92.7	93.2	92.5	92.1
63°	88.7	88.7	89.4	90.1	89.4	88.9
63.5°	85.5	85.6	86.5	86.7	86.1	85.7
64°	82.2	82.5	83.0	83.6	82.9	82.5
64.5°	79.0	79.2	80.0	80.4	79.8	79.5
65°	76.1	76.3	76.9	77.3	76.7	76.5
65.5°	73.1	73.2	74.1	74.1	73.7	73.5
66°	70.0	70.1	70.9	71.4	70.8	70.5



TEST NUMBER: P639502

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	61.6	61.7	62.4	62.7	62.5	62.3
68°	58.8	59.1	59.7	59.9	59.7	59.7
68.5°	56.1	56.4	56.9	57.3	57.1	57.1
69°	53.3	53.6	54.2	54.6	54.5	54.5
69.5°	50.8	51.1	51.6	51.9	51.9	51.9
70°	48.5	48.3	49.1	49.5	49.4	49.5
70.5°	46.2	45.8	46.7	47.0	47.1	47.2
71°	43.7	43.4	44.0	44.6	44.7	44.8
71.5°	41.4	41.1	41.7	42.1	42.3	42.4
72°	39.1	38.7	39.3	39.8	40.0	40.3
72.5°	36.9	36.4	36.9	37.5	37.7	37.9
73°	34.7	34.1	34.6	35.2	35.5	35.8
73.5°	32.6	31.9	32.4	33.0	33.5	33.8
74°	30.6	29.9	30.4	31.1	31.4	31.9
74.5°	28.5	28.0	28.4	29.0	29.5	30.0
75°	26.7	26.1	26.6	27.2	27.7	28.3
75.5°	24.9	24.3	24.8	25.4	25.9	26.4
76°	23.1	22.6	23.1	23.7	24.3	24.8
76.5°	21.5	21.1	21.4	22.1	22.6	23.2
77°	19.9	19.5	19.9	20.5	21.1	21.7
77.5°	18.4	18.1	18.5	19.0	19.6	20.2
78°	16.9	16.7	17.0	17.7	18.3	18.8
78.5°	15.7	15.5	15.9	16.4	16.9	17.5
79°	14.5	14.4	14.7	15.3	15.9	16.3
79.5°	13.3	13.3	13.5	14.1	14.7	15.3
80°	12.2	12.3	12.6	13.1	13.6	14.1
80.5°	11.3	11.3	11.6	12.1	12.7	13.1
81°	10.3	10.5	10.8	11.2	11.7	12.2
81.5°	9.6	9.8	10.1	10.5	10.8	11.3
82°	8.8	9.1	9.3	9.7	10.1	10.5
82.5°	8.1	8.3	8.5	8.9	9.3	9.7
83°	7.4	7.5	7.8	8.2	8.6	9.0
83.5°	6.6	6.9	7.1	7.5	7.9	8.3
84°	5.9	6.2	6.4	6.8	7.2	7.7
84.5°	5.2	5.5	5.7	6.1	6.5	6.9
85°	4.5	4.7	5.1	5.4	5.8	6.3
85.5°	3.8	4.1	4.3	4.7	5.1	5.5
86°	3.2	3.5	3.7	4.0	4.5	4.9
86.5°	2.6	2.7	3.1	3.4	3.9	4.2
87°	1.9	2.1	2.4	2.7	3.2	3.5
87.5°	1.3	1.5	1.8	2.1	2.5	2.9
88°	0.6	0.9	1.1	1.5	1.9	2.3
88.5°	0.1	0.4	0.6	0.9	1.3	1.7



TEST NUMBER: P639502

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.1	0.1

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

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9



Signify Classified - Internal  
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Scaled Data Report





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

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21.5°	350.5	352.3	353.4	354.7	354.9	355.5	355.2	353.3	351.9	351.4	349.8
22°	348.3	350.3	351.3	353.2	353.0	354.1	353.2	352.1	350.3	349.9	347.7



44°	231.8	235.1	237.4	239.0	239.8	239.8	238.5	236.9	234.4	233.0	230.6
44.5°	228.6	231.4	233.1	235.0	235.8	235.6	235.1	233.3	231.0	228.8	226.6



66.5°	67.7	68.7	69.7	70.4	70.3	69.7	68.9	68.0	67.2	67.0	66.8
67°	65.1	65.8	66.9	67.5	67.6	66.8	65.9	65.1	64.3	64.2	63.9



89°	1.1	1.5	1.7	1.9	1.6	1.4	1.1	0.5	0.2	0.0	0.0
89.5°	0.5	0.9	1.2	1.2	1.1	0.9	0.4	0.0	0.0	0.0	0.0



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21.5°	348.8	347.3	347.5	348.2	349.1	350.5
22°	346.5	344.9	345.9	346.7	347.1	348.3



44°	229.1	227.7	228.2	230.2	231.5	231.8
44.5°	225.8	223.8	224.5	226.9	227.6	228.6



66.5°	67.1	67.3	68.0	68.3	67.9	67.7
67°	64.3	64.5	65.2	65.5	65.2	65.1

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89°	0.0	0.1	0.2	0.4	0.7	1.1
89.5°	0.0	0.0	0.0	0.1	0.3	0.5

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Scaled Data Report



(END OF REPORT)