

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: P639497

Luminaire Tested: RL56LS9FSD2W1EWH -1200LM -4000K

Issue Date: 1/25/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P639497  
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 -1200LM -4000K  
Description: 5/6IN RETROFIT, SELECTABLE LUMEN AND CCT, MATTE WHITE BAFFLE  
Light Source: (1) SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

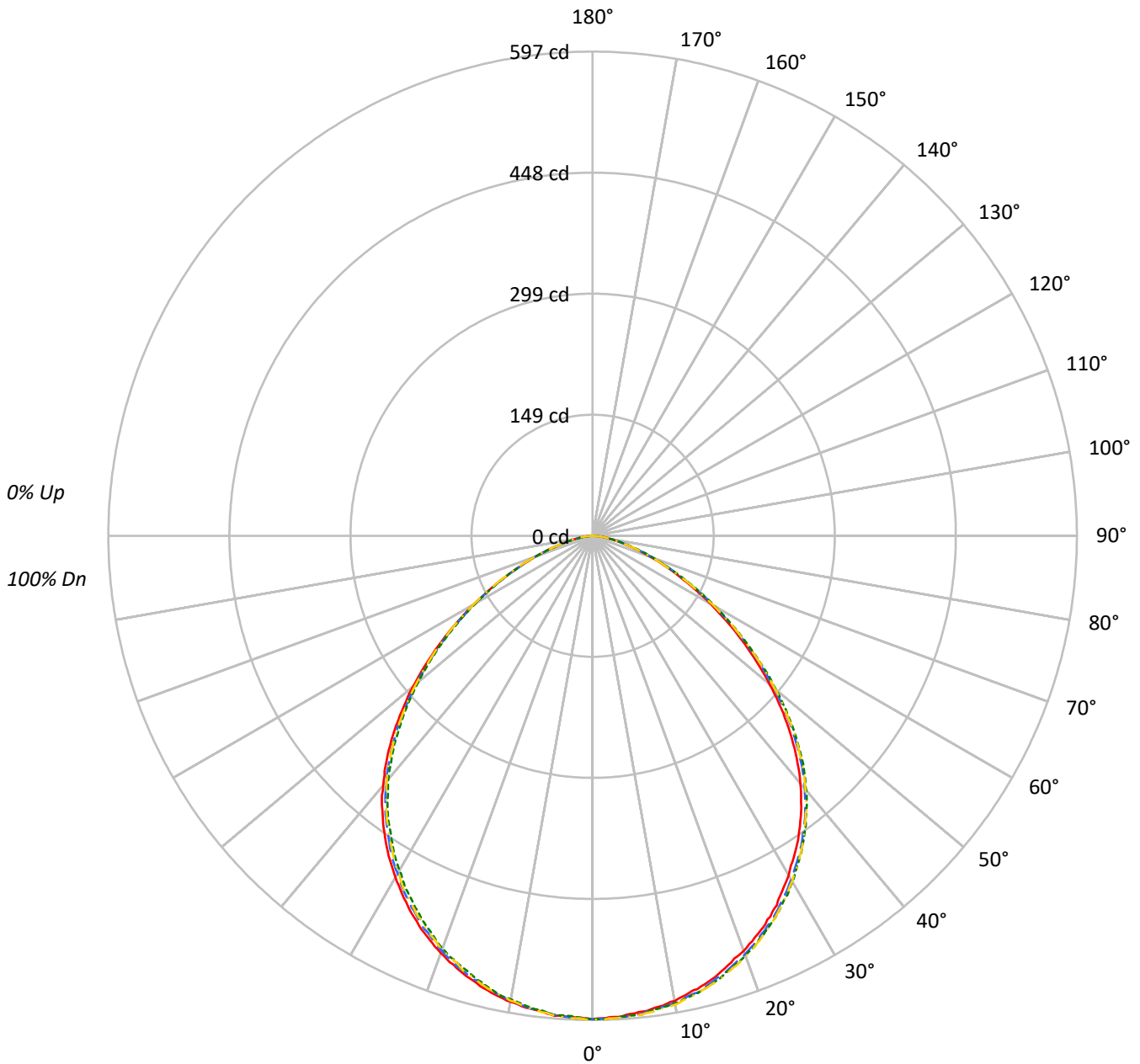
Lumens per Lamp: N/A  
Luminaire Lumens: 1380.0 lumens  
Efficiency: N/A  
Efficacy: 95.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.3  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 14.4  
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					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	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°	32684	32684	32684	32684
5°	32539	32666	32616	32578
10°	32420	32581	32487	32320
15°	32157	32452	32248	31975
20°	31777	32162	31940	31602
25°	31345	31738	31429	30867
30°	30593	31201	30777	30157
35°	29721	30396	29935	29239
40°	28496	29305	28732	28038
45°	26700	27592	27003	26173
50°	24289	25176	24605	23897
55°	21457	22212	21724	21304
60°	18387	19121	18518	18277
65°	15216	15812	15190	15164
70°	12166	12759	11941	11877
75°	9171	9807	8811	8494
80°	6851	7229	6219	5935
85°	6038	6353	5032	4592

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 112.5°  
 Vertical Angle: 45°  
 Luminance: 27623 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.3	4.1
10°-20°	160.2	11.6
20°-30°	238.8	17.3
30°-40°	278.6	20.2
40°-50°	267.0	19.3
50°-60°	203.5	14.7
60°-70°	118.5	8.6
70°-80°	47.2	3.4
80°-90°	10.0	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°	455.3	33.0
0°-40°	733.9	53.2
0°-60°	1204.3	87.3
0°-90°	1380.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1380.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	596	596	596	596	596	
5°	591	594	593	592	591	56
15°	567	572	568	563	567	160
25°	518	525	520	510	518	238
35°	444	454	447	437	444	277
45°	344	356	348	338	344	265
55°	224	232	227	223	224	201
65°	117	122	117	117	117	117
75°	43	46	42	40	43	47
85°	10	10	8	7	10	11
90°	0	1	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°	596.2	596.2	596.2	596.2	596.2	596.2	596.2	596.2	596.2	596.2	596.2
0.5°	595.3	596.2	596.2	596.3	595.9	596.2	596.6	595.7	595.4	596.1	596.1
1°	595.2	596.0	595.7	595.9	595.9	596.1	597.1	596.5	594.9	596.0	595.6
1.5°	595.2	595.9	595.3	596.2	595.7	595.9	596.6	596.8	594.2	595.7	595.2
2°	594.1	595.6	595.0	596.2	595.6	594.8	595.4	596.6	594.2	595.9	595.7
2.5°	594.0	596.2	595.2	595.8	595.3	595.3	595.4	595.4	594.0	595.3	595.2
3°	594.1	595.6	595.1	596.4	594.7	595.7	595.3	595.3	593.9	594.8	594.1
3.5°	593.7	594.9	594.4	596.4	593.9	595.7	595.3	595.7	593.9	595.1	594.4
4°	592.1	594.2	594.3	595.7	593.9	595.9	595.1	594.0	593.2	595.9	592.8
4.5°	591.5	593.6	593.6	594.2	593.6	595.6	594.9	593.4	593.7	594.9	592.8
5°	591.3	593.8	593.0	594.1	593.6	594.7	594.3	593.4	592.7	593.0	591.5
5.5°	590.0	593.7	593.0	593.6	593.7	593.1	594.1	593.2	591.8	592.7	590.5
6°	590.0	592.6	592.5	592.8	593.1	592.8	593.2	592.3	590.3	592.5	590.3
6.5°	589.9	590.7	590.6	592.4	591.3	591.8	592.2	591.2	589.4	590.5	589.9
7°	588.3	590.3	590.3	591.5	589.7	591.3	591.6	590.5	588.8	590.3	589.0
7.5°	587.1	588.9	589.3	591.0	588.9	589.6	591.5	590.1	587.9	589.3	588.2
8°	586.3	588.0	588.3	589.5	588.9	588.7	589.9	588.9	587.8	587.7	586.5
8.5°	585.8	587.2	587.2	589.3	587.6	588.7	589.0	588.6	586.7	586.9	585.4
9°	584.3	586.9	586.7	587.5	587.4	587.7	588.1	587.4	585.2	585.8	584.5
9.5°	582.6	585.7	585.6	587.2	586.5	586.4	587.9	586.7	584.2	585.6	583.5
10°	582.4	584.1	584.8	585.9	585.3	585.4	587.0	585.0	583.6	583.9	582.8
10.5°	580.4	583.6	583.3	584.3	585.1	585.0	585.7	583.8	582.7	583.4	580.7
11°	579.1	581.8	582.3	584.0	582.8	582.7	583.5	582.7	581.1	580.6	579.0
11.5°	577.8	580.1	580.4	581.8	581.7	581.4	582.7	580.7	579.8	580.2	577.9
12°	575.8	579.1	579.1	580.4	580.5	581.4	581.9	579.6	578.4	578.4	576.5
12.5°	574.1	577.6	578.1	579.3	579.1	580.5	579.6	578.6	577.1	577.4	574.8
13°	573.7	575.9	578.0	577.5	578.4	578.8	578.5	576.5	575.1	576.5	573.4
13.5°	571.4	573.5	575.4	576.5	576.5	577.3	576.6	575.8	574.0	574.2	571.0
14°	570.0	572.1	573.3	574.4	575.1	575.5	575.3	574.0	572.5	571.5	569.5
14.5°	568.1	571.5	571.4	573.4	572.9	574.8	573.8	572.5	570.1	570.3	567.2
15°	566.6	569.6	569.7	571.9	571.8	572.1	571.9	570.3	568.2	568.1	566.2
15.5°	564.6	566.4	567.2	570.3	569.4	570.1	570.6	568.4	566.4	566.3	564.5
16°	562.1	564.6	565.5	567.9	568.0	568.5	568.9	567.1	565.0	563.8	562.4
16.5°	559.8	563.3	563.8	565.5	565.8	565.9	566.8	565.1	562.7	562.2	559.9
17°	557.8	560.3	562.4	564.1	562.9	564.7	564.0	562.4	560.7	560.0	558.7
17.5°	555.2	559.6	559.8	561.1	561.9	562.5	562.4	560.7	558.6	557.5	556.7
18°	553.3	556.9	557.6	558.7	559.7	559.8	560.1	560.1	555.9	556.2	553.9
18.5°	549.8	553.4	555.4	558.3	557.0	558.5	558.7	556.8	554.7	554.2	551.4
19°	548.4	551.7	553.0	555.5	555.5	556.4	556.5	554.4	551.9	551.1	549.5
19.5°	546.6	549.6	551.4	552.1	553.2	553.6	553.7	552.3	549.5	548.5	547.0
20°	544.7	548.3	548.9	550.4	551.3	551.3	551.4	549.4	547.5	547.2	544.1
20.5°	542.4	545.4	546.7	548.1	548.2	548.9	549.8	546.9	544.9	543.7	542.3
21°	539.2	543.4	544.1	545.5	546.4	546.6	547.8	545.0	542.7	541.6	538.8



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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°	531.7	535.4	536.3	539.1	538.1	539.4	539.3	537.0	534.5	533.5	530.1
23°	529.2	532.4	533.2	535.5	536.5	537.3	536.2	534.4	531.6	529.9	527.9
23.5°	526.6	529.7	531.3	532.9	533.0	534.5	533.5	531.8	529.3	527.2	525.6
24°	524.0	526.6	527.8	529.4	530.5	531.8	530.8	529.1	526.2	524.8	522.4
24.5°	519.9	523.4	525.4	527.0	527.4	528.8	528.1	525.8	522.5	522.5	518.8
25°	518.2	520.5	523.4	524.1	524.7	525.3	525.0	523.0	519.6	518.8	515.4
25.5°	514.0	517.7	519.8	521.6	522.2	522.0	522.1	519.6	516.9	514.8	512.0
26°	511.2	514.4	516.2	518.3	519.2	519.1	519.0	516.1	513.7	512.0	509.6
26.5°	509.2	511.0	513.4	514.8	515.9	516.8	515.4	513.0	510.4	509.3	505.8
27°	504.0	508.5	509.8	512.0	512.4	513.3	512.2	510.6	506.8	505.6	502.5
27.5°	500.6	505.5	506.4	508.6	508.7	509.5	509.4	506.9	503.7	502.4	499.4
28°	497.1	501.3	503.0	505.4	505.5	506.0	505.2	503.4	500.2	499.3	496.0
28.5°	493.6	497.6	500.2	501.7	503.5	502.3	502.1	499.8	496.9	495.6	492.3
29°	490.1	494.1	496.7	497.9	499.7	499.2	498.7	496.5	493.0	492.0	488.7
29.5°	486.9	490.8	492.9	495.0	495.5	495.5	495.1	492.9	490.1	487.7	485.2
30°	483.3	487.9	489.5	491.5	492.9	492.1	492.0	489.3	486.2	483.9	480.8
30.5°	479.0	484.2	486.1	487.8	489.1	488.6	487.7	485.6	482.4	480.9	477.9
31°	474.7	479.7	482.3	484.2	484.5	485.1	484.2	482.0	478.7	477.2	474.0
31.5°	471.4	476.8	478.5	480.6	481.1	481.2	481.0	478.3	474.8	473.8	470.7
32°	467.9	473.0	475.1	476.6	477.5	478.4	477.5	474.5	471.3	470.5	466.5
32.5°	464.2	468.9	471.3	473.0	474.0	473.8	473.8	470.8	468.0	465.5	462.4
33°	460.5	464.8	467.7	469.0	470.1	470.1	469.5	466.7	464.0	461.7	458.6
33.5°	456.6	461.3	463.9	465.3	466.5	466.3	466.1	462.7	459.9	457.6	454.1
34°	452.8	457.3	460.1	461.9	462.1	462.0	462.0	459.1	456.1	453.6	449.7
34.5°	448.5	452.5	456.0	458.0	458.5	458.1	458.0	455.6	451.6	449.3	445.2
35°	444.1	449.1	451.5	454.3	454.2	454.5	453.2	451.3	447.3	445.2	441.3
35.5°	440.3	444.8	447.5	449.4	450.1	450.6	449.1	448.2	443.6	441.5	437.5
36°	435.3	440.4	443.5	445.0	446.4	446.9	444.5	443.0	439.3	437.2	432.9
36.5°	431.6	436.4	439.0	441.1	442.1	442.4	440.4	437.8	434.7	432.8	429.2
37°	427.2	431.3	435.0	437.0	436.4	437.8	436.1	434.2	430.3	428.3	424.5
37.5°	422.6	427.5	430.2	431.5	432.5	432.2	431.4	429.4	426.0	423.4	419.9
38°	417.2	422.4	425.7	427.1	427.9	428.4	428.6	424.5	422.0	418.8	414.9
38.5°	412.9	418.1	420.3	422.1	424.2	423.2	423.5	419.7	417.2	413.8	410.5
39°	408.4	413.1	416.2	417.6	419.5	419.9	418.0	415.7	412.7	410.0	405.6
39.5°	403.2	408.6	411.5	413.4	415.1	415.2	412.9	411.0	406.6	404.4	400.5
40°	398.2	404.7	406.9	408.8	409.5	409.5	407.8	406.1	401.5	400.2	395.9
40.5°	393.8	398.7	402.1	403.6	404.0	404.5	403.5	399.8	396.8	395.9	391.0
41°	388.4	393.2	396.5	398.8	399.8	400.0	398.5	396.0	391.3	389.9	386.1
41.5°	383.2	387.8	391.2	393.6	394.7	394.9	393.2	391.5	387.1	384.1	380.3
42°	377.8	382.9	386.4	388.2	389.6	388.5	387.9	385.1	381.5	379.2	375.2
42.5°	372.3	377.1	380.8	382.1	385.1	384.1	382.2	379.8	375.9	374.2	369.7
43°	367.1	371.7	374.9	376.9	379.2	378.3	377.1	374.2	370.6	368.5	364.5
43.5°	361.5	366.2	369.5	371.8	373.5	373.0	371.0	368.5	365.3	362.9	358.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	344.4	349.1	352.8	354.0	355.9	356.3	354.1	351.8	348.3	345.7	342.4
45.5°	338.7	343.4	346.2	348.6	350.6	350.4	349.1	346.0	342.3	339.8	336.9
46°	333.0	337.3	341.0	343.1	344.1	344.1	342.8	339.9	336.6	334.3	331.0
46.5°	326.8	331.1	335.0	337.2	338.9	338.1	336.8	334.1	330.5	328.2	324.8
47°	321.6	325.2	328.6	330.2	332.2	332.5	330.2	327.9	325.0	322.4	319.2
47.5°	315.0	319.6	322.8	323.9	326.2	326.1	324.4	322.3	318.2	316.8	312.7
48°	309.3	313.3	316.8	317.8	320.6	319.8	318.5	316.4	312.7	310.9	307.1
48.5°	303.4	307.2	310.3	312.1	313.9	313.7	312.9	309.8	306.8	305.0	301.0
49°	297.0	300.9	304.2	305.9	307.7	307.2	305.8	303.8	301.0	298.8	295.4
49.5°	291.3	294.8	298.2	300.2	301.6	301.5	300.0	297.7	294.9	292.6	289.2
50°	284.8	288.4	291.8	293.1	295.2	295.7	293.4	291.3	288.5	286.5	283.5
50.5°	279.2	283.0	285.5	287.5	288.7	289.0	287.2	284.9	282.3	280.5	277.5
51°	272.9	277.0	279.1	281.4	283.0	281.9	281.4	279.1	276.4	275.0	272.0
51.5°	267.0	270.7	273.4	274.8	277.2	276.3	275.2	273.0	270.4	268.0	265.5
52°	260.2	264.2	267.0	269.1	270.9	270.0	268.6	267.0	264.6	262.6	259.4
52.5°	254.5	257.6	260.6	262.5	264.0	263.7	262.7	260.9	258.2	256.5	253.6
53°	248.6	251.6	254.4	256.3	257.4	258.3	256.2	254.2	251.7	250.0	247.8
53.5°	242.4	245.6	248.6	250.4	251.4	251.3	250.1	248.3	245.7	244.3	242.0
54°	236.5	239.4	242.8	244.0	245.0	244.9	243.7	242.4	239.9	238.0	235.9
54.5°	231.0	233.6	236.3	238.1	238.9	239.0	237.7	236.4	233.7	232.1	230.0
55°	224.5	227.4	230.2	232.0	232.4	232.6	231.6	230.0	227.3	225.9	223.8
55.5°	218.6	221.4	224.1	225.9	226.6	226.7	225.3	223.7	221.4	219.7	218.3
56°	212.9	215.4	218.3	219.9	220.7	220.4	218.9	217.9	215.3	213.9	212.5
56.5°	207.2	209.7	212.4	214.0	214.8	214.4	213.0	211.7	209.8	208.5	206.7
57°	201.3	203.7	206.7	207.8	208.9	208.3	207.6	205.6	203.6	202.3	201.1
57.5°	195.4	198.1	201.1	202.1	202.7	202.5	201.2	199.6	197.7	196.4	195.1
58°	189.6	192.5	195.2	196.4	197.1	196.6	195.4	193.9	191.8	190.8	189.3
58.5°	184.2	186.2	189.1	190.5	191.7	191.1	189.4	187.8	185.8	185.0	183.7
59°	178.6	180.7	183.6	184.4	185.8	185.3	183.7	182.3	180.3	179.1	178.0
59.5°	173.1	175.0	177.6	179.1	179.5	179.0	178.3	176.3	174.4	173.6	172.7
60°	167.7	169.4	172.2	173.7	174.4	173.3	172.3	170.9	168.9	168.2	167.3
60.5°	162.3	164.0	166.8	167.9	168.9	168.2	166.8	165.2	163.5	162.7	161.8
61°	156.9	158.6	161.5	162.7	163.5	162.5	161.0	159.4	157.8	157.1	156.4
61.5°	151.9	153.3	156.0	157.2	157.9	157.0	155.6	154.0	152.5	151.6	150.8
62°	146.6	148.1	150.5	151.7	152.8	151.5	150.1	148.6	147.1	146.4	145.7
62.5°	141.2	143.1	145.2	146.5	147.4	146.3	144.8	143.8	141.9	141.0	140.6
63°	136.3	138.0	140.1	141.2	142.1	140.7	139.7	138.0	136.8	136.1	135.3
63.5°	131.3	133.1	135.1	136.4	136.6	135.9	134.4	133.0	131.8	131.2	130.7
64°	126.4	128.2	130.3	131.5	131.8	131.0	129.6	127.9	126.7	126.2	126.0
64.5°	121.8	123.4	125.5	126.5	127.0	126.0	124.6	123.1	121.7	121.4	120.8
65°	117.3	118.8	120.6	121.6	121.9	121.1	119.6	118.5	117.1	116.9	116.0
65.5°	112.6	114.0	116.1	117.0	117.3	116.4	115.1	113.7	112.4	111.8	111.7
66°	108.1	109.7	111.5	112.3	112.7	111.6	110.2	108.7	107.6	107.3	106.8





TEST NUMBER: P639497

CATALOG NUMBER: RL56LS9FSD2W1EWH -1200LM -4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	95.6	96.9	98.7	99.7	99.0	98.3	97.0	95.7	94.4	94.0	93.8
68°	91.6	92.8	94.4	95.5	95.1	94.1	92.8	91.2	90.1	89.9	89.6
68.5°	87.6	88.9	90.2	91.4	90.9	89.9	88.4	87.0	85.9	85.9	85.3
69°	83.5	84.9	86.4	87.3	87.0	86.1	84.5	83.2	82.1	81.7	81.3
69.5°	79.6	81.0	82.5	83.3	83.4	82.2	80.7	79.2	78.1	77.8	77.5
70°	75.9	77.3	78.9	79.4	79.6	78.6	77.1	75.6	74.5	74.1	73.9
70.5°	72.4	73.6	75.0	75.7	75.9	74.9	73.6	72.1	70.9	70.5	70.2
71°	68.7	70.1	71.2	72.2	72.4	71.3	69.9	68.5	67.4	66.9	66.6
71.5°	65.0	66.5	67.7	68.4	68.8	67.7	66.2	65.1	63.7	63.2	63.1
72°	61.7	62.9	64.1	64.8	65.4	64.3	62.8	61.5	60.3	59.9	59.7
72.5°	58.2	59.3	60.7	61.2	61.8	61.0	59.5	58.1	57.1	56.5	56.2
73°	54.9	56.2	57.2	57.7	58.6	57.5	56.1	54.8	53.9	53.2	52.9
73.5°	51.8	53.1	54.1	54.6	55.4	54.4	52.9	51.6	50.5	50.1	49.7
74°	49.0	50.1	51.1	51.4	52.4	51.2	49.8	48.5	47.4	46.8	46.4
74.5°	46.0	47.2	48.0	48.4	49.3	48.0	46.8	45.6	44.5	43.9	43.6
75°	43.3	44.5	45.3	45.5	46.3	45.3	43.9	42.7	41.6	41.0	40.9
75.5°	40.5	41.6	42.6	42.7	43.4	42.6	41.1	40.1	38.8	38.3	38.1
76°	38.0	39.0	39.8	40.0	40.7	39.8	38.4	37.4	36.3	35.8	35.5
76.5°	35.6	36.6	37.3	37.4	38.1	37.2	35.9	34.6	33.6	33.1	32.8
77°	33.2	34.2	34.9	35.1	35.6	34.6	33.4	32.3	31.2	30.8	30.5
77.5°	31.0	31.9	32.6	32.7	33.2	32.3	31.1	30.0	29.0	28.4	28.2
78°	28.8	29.6	30.4	30.5	30.9	30.0	29.0	27.9	27.0	26.3	26.0
78.5°	26.8	27.8	28.4	28.4	28.7	27.8	26.9	25.9	24.8	24.4	24.1
79°	25.0	25.9	26.3	26.3	26.6	25.9	24.7	24.2	23.2	22.6	22.4
79.5°	23.4	24.2	24.7	24.7	24.5	24.1	23.3	22.3	21.4	20.8	20.5
80°	21.7	22.5	22.9	22.9	22.9	22.4	21.5	20.5	19.7	19.3	18.9
80.5°	20.1	20.8	21.4	21.3	21.3	20.6	19.8	19.1	18.3	17.8	17.4
81°	18.7	19.4	19.7	19.7	19.6	19.1	18.3	17.6	16.9	16.4	15.9
81.5°	17.3	17.9	18.3	18.3	18.0	17.6	16.8	16.1	15.5	15.1	14.8
82°	16.0	16.6	17.0	16.9	16.7	16.1	15.5	14.9	14.4	14.0	13.7
82.5°	14.9	15.4	15.7	15.6	15.3	14.9	14.5	13.8	13.3	12.9	12.5
83°	13.8	14.3	14.7	14.7	14.3	13.8	13.4	12.9	12.2	11.9	11.3
83.5°	12.7	13.2	13.6	13.6	13.1	12.8	12.3	11.7	11.1	10.6	10.2
84°	11.8	12.2	12.6	12.6	12.2	11.8	11.2	10.6	10.0	9.6	9.2
84.5°	10.6	11.1	11.5	11.5	11.1	10.8	10.2	9.7	9.0	8.6	8.2
85°	9.6	10.1	10.5	10.5	10.1	9.8	9.1	8.7	8.0	7.6	6.9
85.5°	8.5	9.1	9.5	9.5	9.1	8.8	8.3	7.6	6.8	6.5	6.0
86°	7.5	8.1	8.5	8.5	8.1	7.8	7.3	6.5	6.0	5.4	5.3
86.5°	6.4	7.1	7.5	7.6	7.2	6.7	6.3	5.6	5.3	4.5	4.0
87°	5.4	6.1	6.4	6.5	6.3	5.9	5.3	4.6	4.0	3.5	3.0
87.5°	4.5	5.2	5.5	5.6	5.3	5.2	4.3	3.8	3.1	2.5	2.1
88°	3.5	4.1	4.6	4.7	4.3	4.0	3.4	2.7	2.0	1.6	1.1
88.5°	2.7	3.3	3.6	3.7	3.4	3.0	2.5	1.8	1.2	0.6	0.5



TEST NUMBER: P639497

CATALOG NUMBER: RL56LS9FSD2W1EWH -1200LM -4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.2	0.6	1.0	1.0	0.7	0.6	0.1	0.0	0.0	0.0	0.0



TEST NUMBER: P639497

CATALOG NUMBER: RL56LS9FSD2W1EWH -1200LM -4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	596.2	596.2	596.2	596.2	596.2	596.2
0.5°	595.7	595.6	596.3	596.9	595.4	595.3
1°	595.2	594.8	595.1	596.2	595.7	595.2
1.5°	595.0	594.4	594.8	595.3	596.5	595.2
2°	594.9	593.8	594.8	595.3	596.5	594.1
2.5°	593.9	592.8	594.3	595.6	595.1	594.0
3°	593.9	592.8	593.6	594.9	594.4	594.1
3.5°	593.8	592.4	593.6	594.4	594.1	593.7
4°	593.5	592.8	593.0	593.6	593.8	592.1
4.5°	593.1	592.7	593.2	593.3	592.9	591.5
5°	593.4	592.0	591.2	592.6	591.9	591.3
5.5°	592.8	590.4	591.1	591.2	590.5	590.0
6°	589.9	589.0	589.5	591.0	590.5	590.0
6.5°	588.7	588.1	589.4	589.7	588.6	589.9
7°	588.0	587.9	588.5	588.7	588.3	588.3
7.5°	587.3	586.4	585.9	588.2	587.6	587.1
8°	587.1	585.6	585.2	586.8	586.8	586.3
8.5°	585.0	583.9	584.3	585.6	585.7	585.8
9°	584.1	582.8	582.3	583.8	584.4	584.3
9.5°	583.1	581.3	581.7	582.8	583.6	582.6
10°	581.8	580.6	581.4	582.1	582.2	582.4
10.5°	580.0	579.4	579.5	580.2	581.1	580.4
11°	579.9	579.1	579.0	579.0	578.4	579.1
11.5°	577.9	577.7	577.7	577.2	577.5	577.8
12°	577.2	575.2	574.2	575.5	576.2	575.8
12.5°	574.6	573.4	572.5	574.2	574.1	574.1
13°	572.0	571.3	571.5	573.0	572.8	573.7
13.5°	570.9	569.4	570.5	571.3	571.1	571.4
14°	569.9	567.1	568.5	569.3	569.5	570.0
14.5°	567.6	565.9	566.3	567.0	566.6	568.1
15°	565.6	563.4	565.0	564.4	566.1	566.6
15.5°	563.0	561.1	561.8	562.5	563.8	564.6
16°	560.9	558.9	559.9	559.9	561.3	562.1
16.5°	559.3	556.7	557.7	559.9	559.2	559.8
17°	557.0	554.7	555.8	557.0	558.0	557.8
17.5°	554.9	553.0	554.4	553.2	555.0	555.2
18°	553.2	550.3	551.5	551.6	552.0	553.3
18.5°	549.8	548.9	547.9	548.8	550.4	549.8
19°	547.8	546.8	545.7	548.0	548.0	548.4
19.5°	545.4	543.9	543.2	544.6	546.1	546.6
20°	542.8	541.7	540.7	542.3	543.4	544.7
20.5°	539.3	538.9	538.3	540.5	541.3	542.4
21°	537.1	535.9	536.0	536.8	537.7	539.2



TEST NUMBER: P639497

CATALOG NUMBER: RL56LS9FSD2W1EWH -1200LM -4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	529.5	526.2	526.8	528.9	529.0	531.7
23°	526.1	523.6	523.6	526.2	527.3	529.2
23.5°	523.7	520.4	521.2	522.9	524.1	526.6
24°	520.2	517.8	518.2	519.1	520.7	524.0
24.5°	517.3	514.0	515.0	516.8	518.1	519.9
25°	513.9	510.3	511.7	514.2	515.4	518.2
25.5°	510.3	507.9	508.2	510.6	511.9	514.0
26°	507.6	504.5	505.4	507.1	509.4	511.2
26.5°	504.3	500.8	502.4	503.8	505.4	509.2
27°	500.7	497.7	498.5	500.6	502.1	504.0
27.5°	497.1	494.2	494.9	497.5	499.2	500.6
28°	494.0	491.7	491.7	495.3	495.4	497.1
28.5°	490.6	487.7	488.2	490.9	491.7	493.6
29°	486.5	483.9	484.7	487.2	488.2	490.1
29.5°	482.5	479.4	481.0	482.8	484.7	486.9
30°	479.0	476.4	476.8	479.7	481.3	483.3
30.5°	475.4	472.8	473.3	476.2	477.3	479.0
31°	471.8	469.4	469.4	472.6	473.5	474.7
31.5°	468.3	465.6	465.5	468.1	469.8	471.4
32°	463.5	461.7	461.4	464.1	466.3	467.9
32.5°	459.3	457.5	457.4	459.7	462.4	464.2
33°	455.3	452.5	453.7	456.1	458.6	460.5
33.5°	451.4	449.2	449.9	452.3	454.4	456.6
34°	447.7	444.5	445.5	447.9	450.5	452.8
34.5°	443.7	440.6	441.5	444.3	446.4	448.5
35°	439.9	436.9	437.4	440.0	442.5	444.1
35.5°	435.4	433.4	433.4	435.5	437.6	440.3
36°	430.4	428.9	429.5	431.7	433.9	435.3
36.5°	426.5	424.4	424.5	427.0	428.9	431.6
37°	422.7	420.2	419.6	422.8	425.2	427.2
37.5°	418.1	415.2	415.4	417.8	420.8	422.6
38°	413.0	410.3	411.3	413.4	416.1	417.2
38.5°	408.4	405.3	407.0	409.0	411.0	412.9
39°	403.7	400.8	401.7	404.2	406.2	408.4
39.5°	398.2	396.8	397.1	399.9	401.3	403.2
40°	393.6	391.8	391.8	394.9	396.7	398.2
40.5°	388.8	386.9	387.7	389.9	391.2	393.8
41°	383.2	381.4	382.5	385.0	386.4	388.4
41.5°	378.7	375.3	377.5	380.0	381.4	383.2
42°	373.7	370.3	372.7	374.3	376.1	377.8
42.5°	367.6	365.5	366.7	368.8	371.4	372.3
43°	362.4	360.3	360.8	363.6	365.7	367.1
43.5°	356.6	355.1	355.1	358.1	360.3	361.5

TEST NUMBER: P639497

CATALOG NUMBER: RL56LS9FSD2W1EWH -1200LM -4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	340.5	337.6	338.8	341.5	343.4	344.4
45.5°	334.7	332.2	333.2	335.9	337.2	338.7
46°	328.9	326.5	327.6	331.0	332.4	333.0
46.5°	322.8	321.0	322.6	324.6	325.9	326.8
47°	317.3	315.3	316.2	318.8	320.4	321.6
47.5°	311.4	309.5	311.0	313.4	314.1	315.0
48°	305.8	303.9	304.7	307.8	308.7	309.3
48.5°	299.6	297.9	299.4	301.1	302.4	303.4
49°	293.2	291.9	293.7	295.9	296.6	297.0
49.5°	287.5	286.5	287.8	290.1	290.3	291.3
50°	282.3	280.2	282.8	284.2	284.1	284.8
50.5°	275.8	274.6	276.4	278.4	279.0	279.2
51°	269.8	268.9	270.9	272.5	273.1	272.9
51.5°	263.9	263.5	264.4	266.8	267.0	267.0
52°	258.3	257.4	258.8	260.8	260.4	260.2
52.5°	252.2	251.7	253.4	254.8	254.6	254.5
53°	246.7	245.7	248.0	249.4	249.0	248.6
53.5°	240.8	239.9	241.7	243.1	243.0	242.4
54°	235.0	234.4	235.7	237.8	236.7	236.5
54.5°	229.2	228.2	229.5	231.9	231.2	231.0
55°	223.5	222.9	224.2	225.8	225.1	224.5
55.5°	217.7	216.9	218.5	219.5	219.3	218.6
56°	212.2	211.3	212.4	214.1	213.4	212.9
56.5°	206.5	205.2	206.7	208.7	208.1	207.2
57°	200.9	199.9	201.5	202.9	202.3	201.3
57.5°	195.0	193.8	195.9	196.8	196.1	195.4
58°	189.2	188.4	190.1	191.2	190.6	189.6
58.5°	183.9	182.9	184.5	185.8	184.8	184.2
59°	178.3	177.7	178.8	180.4	179.3	178.6
59.5°	172.7	172.0	173.7	174.8	174.0	173.1
60°	167.4	166.7	168.0	169.6	168.3	167.7
60.5°	162.3	161.3	162.7	164.0	163.1	162.3
61°	157.1	156.3	157.6	158.6	157.9	156.9
61.5°	151.4	151.3	152.5	153.4	152.6	151.9
62°	146.2	145.7	147.4	147.9	147.0	146.6
62.5°	141.2	140.8	142.2	142.9	141.9	141.2
63°	136.0	136.0	137.1	138.1	137.1	136.3
63.5°	131.0	131.2	132.6	133.0	132.0	131.3
64°	126.0	126.4	127.2	128.2	127.1	126.4
64.5°	121.1	121.4	122.6	123.3	122.3	121.8
65°	116.7	116.9	117.8	118.5	117.5	117.3
65.5°	112.1	112.2	113.7	113.7	113.0	112.6
66°	107.3	107.4	108.7	109.5	108.5	108.1



TEST NUMBER: P639497

CATALOG NUMBER: RL56LS9FSD2W1EWH -1200LM -4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	94.4	94.6	95.7	96.1	95.8	95.6
68°	90.1	90.6	91.6	91.9	91.6	91.6
68.5°	86.0	86.5	87.2	87.8	87.6	87.6
69°	81.8	82.2	83.1	83.7	83.5	83.5
69.5°	77.9	78.3	79.1	79.6	79.5	79.6
70°	74.3	74.1	75.2	75.9	75.7	75.9
70.5°	70.8	70.2	71.5	72.1	72.2	72.4
71°	67.0	66.5	67.5	68.4	68.6	68.7
71.5°	63.5	63.0	63.9	64.6	64.8	65.0
72°	59.9	59.4	60.3	61.0	61.3	61.7
72.5°	56.6	55.8	56.6	57.4	57.7	58.2
73°	53.1	52.2	53.0	54.0	54.4	54.9
73.5°	50.0	49.0	49.7	50.6	51.3	51.8
74°	46.9	45.8	46.6	47.6	48.1	49.0
74.5°	43.7	42.9	43.5	44.5	45.3	46.0
75°	41.0	40.1	40.8	41.7	42.5	43.3
75.5°	38.2	37.3	38.0	38.9	39.7	40.5
76°	35.5	34.6	35.4	36.3	37.2	38.0
76.5°	32.9	32.3	32.8	33.8	34.6	35.6
77°	30.5	29.9	30.5	31.5	32.3	33.2
77.5°	28.2	27.7	28.3	29.1	30.0	31.0
78°	26.0	25.6	26.1	27.1	28.0	28.8
78.5°	24.1	23.8	24.3	25.1	26.0	26.8
79°	22.2	22.1	22.6	23.4	24.3	25.0
79.5°	20.4	20.3	20.7	21.7	22.6	23.4
80°	18.7	18.8	19.3	20.0	20.8	21.7
80.5°	17.3	17.4	17.8	18.6	19.4	20.1
81°	15.8	16.1	16.6	17.2	18.0	18.7
81.5°	14.7	15.0	15.4	16.0	16.6	17.3
82°	13.5	13.9	14.3	14.8	15.5	16.0
82.5°	12.4	12.8	13.1	13.7	14.3	14.9
83°	11.3	11.5	12.0	12.6	13.2	13.8
83.5°	10.1	10.5	10.8	11.5	12.2	12.7
84°	9.0	9.5	9.8	10.4	11.0	11.8
84.5°	8.0	8.4	8.7	9.4	10.0	10.6
85°	6.8	7.3	7.8	8.3	8.9	9.6
85.5°	5.8	6.2	6.6	7.3	7.9	8.5
86°	4.9	5.3	5.7	6.1	6.8	7.5
86.5°	4.0	4.2	4.7	5.2	5.9	6.4
87°	2.9	3.3	3.7	4.2	4.9	5.4
87.5°	1.9	2.2	2.8	3.3	3.8	4.5
88°	0.9	1.3	1.6	2.2	3.0	3.5
88.5°	0.2	0.6	0.9	1.3	1.9	2.7



TEST NUMBER: P639497

CATALOG NUMBER: RL56LS9FSD2W1EWH -1200LM -4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.1	0.2

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



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

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21.5°	537.4	540.3	541.9	543.8	544.2	545.1	544.7	541.7	539.6	538.8	536.4
22°	534.0	537.1	538.6	541.6	541.3	542.9	541.6	540.0	537.2	536.5	533.2



44°	355.5	360.5	364.1	366.5	367.6	367.7	365.7	363.2	359.5	357.3	353.6
44.5°	350.6	354.8	357.4	360.4	361.6	361.2	360.5	357.7	354.2	350.9	347.4



66.5°	103.8	105.3	106.9	107.9	107.8	106.9	105.7	104.2	103.0	102.7	102.4
67°	99.9	100.9	102.6	103.5	103.6	102.4	101.1	99.8	98.6	98.4	97.9



89°	1.6	2.2	2.7	2.9	2.5	2.1	1.6	0.8	0.3	0.0	0.0
89.5°	0.8	1.3	1.8	1.8	1.7	1.3	0.6	0.0	0.0	0.0	0.0



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21.5°	534.8	532.5	532.9	533.9	535.4	537.4
22°	531.3	528.8	530.4	531.7	532.2	534.0



44°	351.3	349.1	349.8	353.0	355.0	355.5
44.5°	346.3	343.1	344.2	347.9	349.0	350.6

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66.5°	102.9	103.1	104.2	104.8	104.1	103.8
67°	98.6	98.9	100.0	100.5	100.0	99.9

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89°	0.0	0.1	0.3	0.6	1.0	1.6
89.5°	0.0	0.0	0.0	0.1	0.4	0.8

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Scaled Data Report



(END OF REPORT)