

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

(formerly Eaton)

Brand: CORELITE

Report Number: P518876

Luminaire Tested: **SQ4-BB-150U-050D-830-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518876  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-25, G2-2009-966-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-BB-150U-050D-830-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

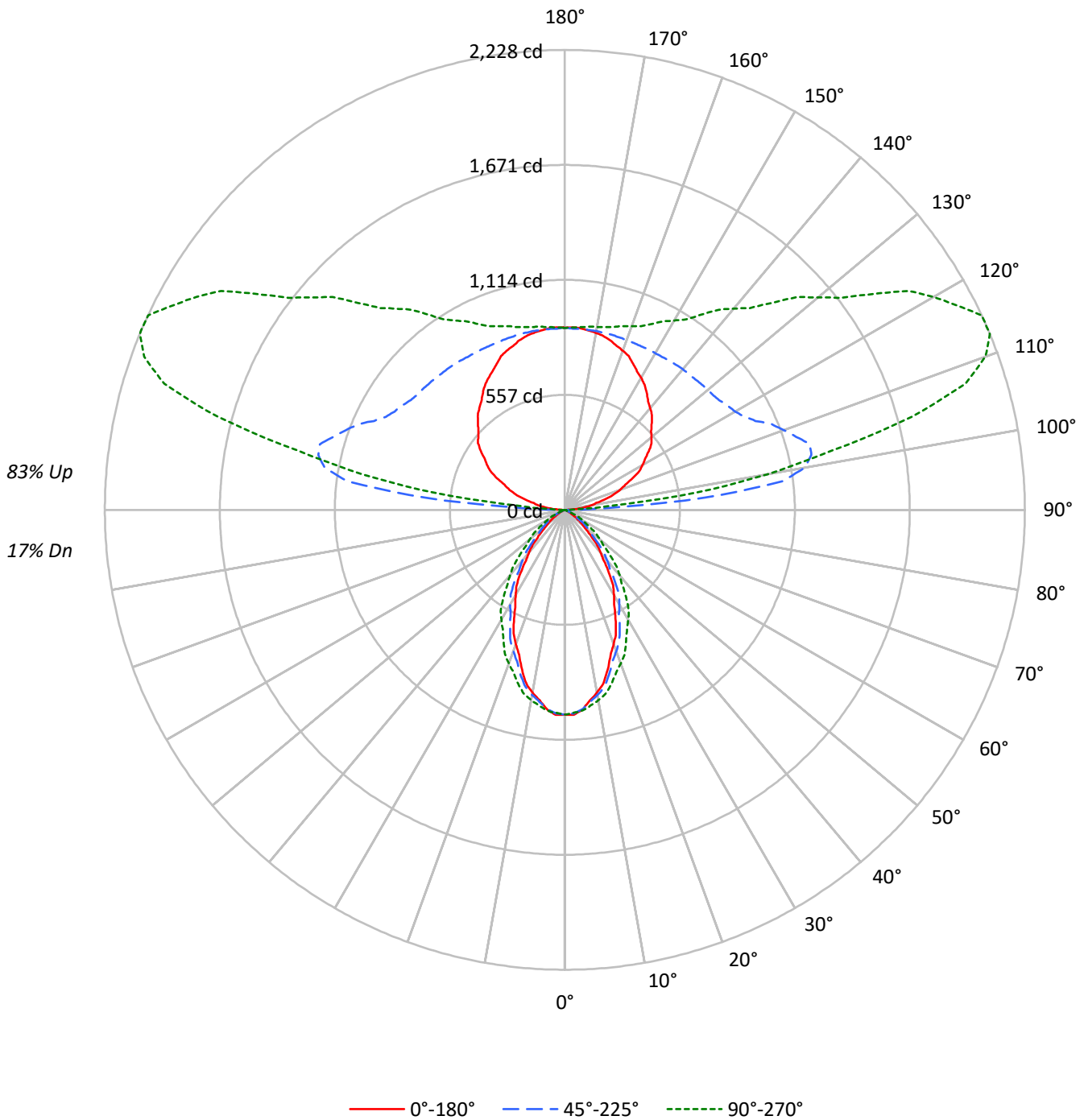
Lumens per Lamp: N/A  
Luminaire Lumens: 6870.9 lumens  
Efficiency: N/A  
Efficacy: 123.4 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 55.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 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	0
RCR																		
0	99	99	99	99	87	87	87	87	65	65	65	45	45	45	26	26	26	17
1	91	87	84	81	80	77	74	72	58	56	54	40	39	38	24	23	23	16
2	83	77	71	67	73	68	63	60	51	48	46	36	34	33	22	21	20	14
3	76	68	61	56	67	60	55	51	46	42	39	32	30	29	20	19	18	13
4	70	60	53	48	62	54	48	43	41	37	34	29	27	25	18	17	16	12
5	64	54	47	41	57	48	42	37	37	33	30	26	24	22	17	15	14	11
6	59	48	41	36	52	43	37	33	33	29	26	24	21	19	15	14	13	10
7	55	44	37	32	48	39	33	29	30	26	23	22	19	17	14	13	12	9
8	51	40	33	28	45	36	30	25	28	23	20	20	18	16	13	12	11	8
9	47	36	29	25	42	32	27	23	25	21	18	19	16	14	12	11	10	8
10	44	33	27	22	39	30	24	20	23	19	16	17	15	13	11	10	9	7

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

	0°	45°	90°
0°	9151	9151	9151
5°	9003	8981	9048
10°	8424	8537	8775
15°	7659	7901	8341
20°	6798	7152	7778
25°	5920	6389	7146
30°	5071	5628	6548
35°	4205	4778	5825
40°	3230	3820	4965
45°	2336	2893	3994
50°	1590	2156	3168
55°	1034	1559	2463
60°	592	1098	1779
65°	157	670	902
70°	78	208	259
75°	36	18	0
80°	27	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.5	1.3
10°-20°	231.5	3.4
20°-30°	289.8	4.2
30°-40°	267.7	3.9
40°-50°	179.8	2.6
50°-60°	92.9	1.4
60°-70°	29.1	0.4
70°-80°	1.8	0.0
80°-90°	1.9	0.0
90°-100°	409.8	6.0
100°-110°	1108.2	16.1
110°-120°	1165.1	17.0
120°-130°	946.4	13.8
130°-140°	742.3	10.8
140°-150°	569.7	8.3
150°-160°	409.7	6.0
160°-170°	250.3	3.6
170°-180°	84.4	1.2
0°-30°	611.8	8.9
0°-40°	879.4	12.8
0°-60°	1152.1	16.8
0°-90°	1185.0	17.2
90°-120°	2683.1	39.0
90°-150°	4941.5	71.9
90°-180°	5686.0	82.8
0°-180°	6870.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	992	992	992	992	992	
5°	972	962	970	973	977	90
15°	802	799	827	855	873	223
25°	582	586	628	670	702	267
35°	373	383	424	474	517	231
45°	179	190	222	265	306	141
55°	64	75	97	124	153	60
65°	7	14	31	37	41	12
75°	1	1	0	0	0	1
85°	0	0	0	0	0	0
90°	2	6	12	13	12	4
95°	64	223	682	353	210	67
105°	206	318	1229	1813	1739	217
115°	363	443	1020	1974	2228	358
125°	496	569	919	1551	1822	443
135°	595	666	894	1252	1417	460
145°	692	744	882	1072	1153	433
155°	781	812	874	961	993	360
165°	851	859	878	912	917	240
175°	883	882	879	890	888	84
180°	882	882	882	882	882	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	991.8	991.8	991.8	991.8	991.8
2.5°	994.1	984.7	987.2	987.1	984.5
5°	972.1	962.3	969.7	973.2	976.9
7.5°	931.0	923.3	937.7	948.4	956.2
10°	899.2	892.6	911.2	925.8	936.6
12.5°	862.3	857.3	879.7	899.8	913.6
15°	801.8	799.0	827.2	855.0	873.3
17.5°	736.9	736.8	769.1	803.5	825.6
20°	692.4	693.8	728.4	766.4	792.2
22.5°	647.8	651.1	688.1	727.7	757.2
25°	581.5	586.2	627.6	670.5	702.0
27.5°	517.8	524.7	568.2	612.8	651.1
30°	476.0	484.0	528.3	575.2	614.6
32.5°	434.9	444.4	487.6	537.3	577.4
35°	373.3	382.7	424.2	474.1	517.2
37.5°	309.7	318.9	359.4	408.5	455.2
40°	268.2	278.5	317.2	364.8	412.2
42.5°	230.6	240.9	277.2	324.0	368.8
45°	179.0	189.8	221.7	264.8	306.1
47.5°	136.2	147.9	175.9	214.9	252.6
50°	110.8	122.6	150.2	184.6	220.7
52.5°	90.5	101.8	126.8	159.2	192.3
55°	64.3	75.1	96.9	124.4	153.1
57.5°	44.4	53.7	73.3	96.3	118.7
60°	32.1	41.1	59.5	78.1	96.4
62.5°	21.4	29.6	47.6	61.9	74.2
65°	7.2	13.8	30.7	37.0	41.3
67.5°	3.6	4.4	16.1	17.0	18.4
70°	2.9	2.9	7.7	8.2	9.6
72.5°	2.1	2.1	3.1	3.9	4.2
75°	1.0	1.0	0.5	0.0	0.0
77.5°	0.5	0.5	0.4	0.0	0.0
80°	0.5	0.5	0.0	0.0	0.0
82.5°	0.1	0.1	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.4	1.1	2.5	2.7	2.5
90°	1.9	5.6	12.3	13.3	12.3
92.5°	27.0	98.2	193.8	84.2	60.9
95°	63.6	223.3	681.6	352.7	209.8
97.5°	102.1	256.0	1062.5	879.3	645.7
100°	131.0	269.3	1180.9	1231.6	995.8
102.5°	157.6	287.7	1222.7	1498.7	1322.4
105°	206.0	318.3	1229.3	1813.4	1739.1
107.5°	250.8	353.3	1175.6	2009.7	2034.4
110°	285.7	378.6	1127.8	2062.4	2167.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	316.9	403.8	1083.7	2051.8	2228.0
115°	362.6	443.4	1019.6	1973.7	2228.0
117.5°	407.4	483.2	977.2	1854.3	2142.6
120°	434.8	509.0	952.2	1768.6	2062.8
122.5°	460.6	533.4	937.0	1676.8	1973.2
125°	496.5	568.9	918.9	1550.7	1821.7
127.5°	529.5	600.6	908.3	1447.8	1686.2
130°	547.7	621.1	903.7	1384.2	1599.6
132.5°	566.7	639.3	899.2	1326.9	1525.2
135°	595.2	665.8	894.2	1252.1	1417.3
137.5°	623.9	690.5	890.1	1191.4	1326.0
140°	643.6	705.8	888.5	1152.3	1272.1
142.5°	662.6	721.1	885.5	1117.1	1221.9
145°	692.0	744.0	881.9	1071.7	1153.4
147.5°	718.8	764.9	877.7	1030.7	1093.4
150°	738.6	779.4	876.2	1008.4	1058.5
152.5°	756.8	792.4	875.4	987.6	1028.9
155°	781.3	811.9	874.3	961.4	993.0
157.5°	806.7	828.1	874.5	943.1	963.9
160°	821.1	838.8	875.3	931.6	946.5
162.5°	832.5	847.2	876.0	922.4	933.5
165°	850.6	858.9	878.1	912.4	917.0
167.5°	862.9	868.7	878.3	903.8	906.0
170°	870.5	873.3	879.1	899.9	899.9
172.5°	876.6	877.1	879.1	895.4	894.6
175°	882.9	881.9	879.1	890.4	888.5
177.5°	884.9	882.7	878.9	886.4	884.2
180°	881.9	881.9	881.9	881.9	881.9

(END OF REPORT)