

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: P518439

Luminaire Tested: **SQ4-BB-050U-075D-940-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518439  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, 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-050U-075D-940-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

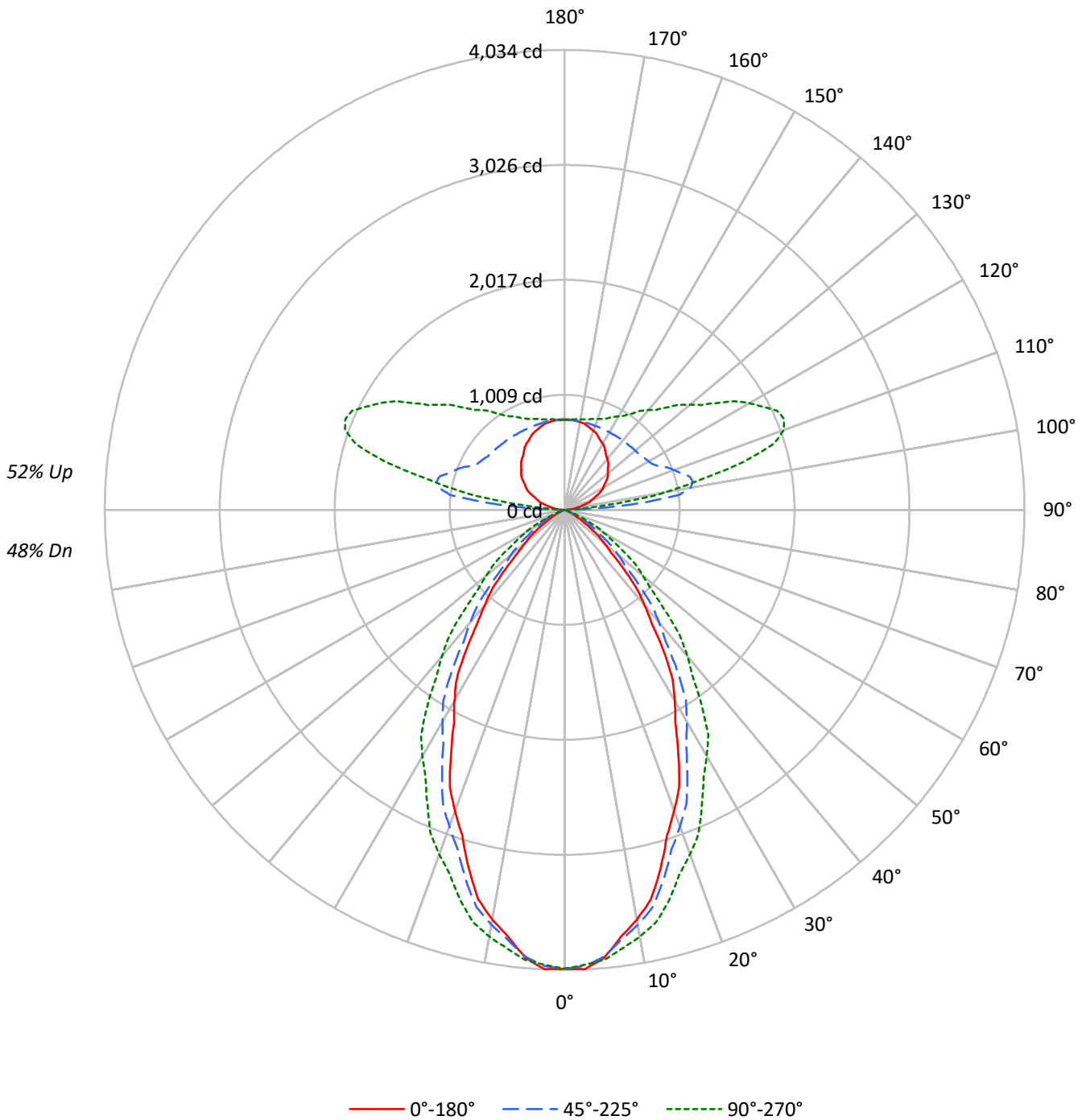
Lumens per Lamp: N/A  
Luminaire Lumens: 9969.8 lumens  
Efficiency: N/A  
Efficacy: 94.4 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 105.6  
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	50	30	10	0	
RCR																						
0	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48				48
1	99	95	92	89	91	88	85	83	75	73	71	62	61	60	51	50	49				44	
2	92	85	80	76	84	79	75	71	68	64	62	57	55	53	47	45	44				40	
3	85	77	70	65	78	71	66	62	61	57	54	52	49	47	43	41	40				36	
4	79	69	62	57	73	64	58	54	56	51	48	47	44	42	40	38	36				32	
5	73	63	55	50	67	59	52	48	51	46	42	44	40	37	37	34	33				29	
6	68	57	50	45	63	53	47	42	47	42	38	40	37	34	34	32	30				27	
7	63	52	45	40	58	49	43	38	43	38	34	37	33	31	32	29	27				25	
8	59	48	41	36	55	45	39	34	40	35	31	34	31	28	30	27	25				23	
9	55	44	37	33	51	42	35	31	37	32	28	32	28	26	28	25	23				21	
10	52	41	34	30	48	38	33	29	34	29	26	30	26	24	26	23	21				20	

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

	0°	45°	90°
0°	12377	12377	12377
5°	12178	12148	12238
10°	11394	11546	11869
15°	10359	10687	11282
20°	9195	9673	10520
25°	8008	8642	9666
30°	6859	7613	8857
35°	5687	6462	7880
40°	4370	5167	6715
45°	3158	3912	5403
50°	2152	2916	4285
55°	1399	2109	3330
60°	803	1485	2407
65°	212	907	1218
70°	105	281	350
75°	46	23	0
80°	34	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	367.3	3.7
10°-20°	939.3	9.4
20°-30°	1175.8	11.8
30°-40°	1086.1	10.9
40°-50°	729.8	7.3
50°-60°	377.0	3.8
60°-70°	118.1	1.2
70°-80°	7.5	0.1
80°-90°	3.2	0.0
90°-100°	379.8	3.8
100°-110°	1031.8	10.3
110°-120°	1060.8	10.6
120°-130°	848.2	8.5
130°-140°	666.4	6.7
140°-150°	511.0	5.1
150°-160°	367.5	3.7
160°-170°	224.7	2.3
170°-180°	75.7	0.8
0°-30°	2482.4	24.9
0°-40°	3568.5	35.8
0°-60°	4675.2	46.9
0°-90°	4803.9	48.2
90°-120°	2472.4	24.8
90°-150°	4498.0	45.1
90°-180°	5166.0	51.8
0°-180°	9969.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4024	4024	4024	4024	4024	
5°	3945	3905	3935	3949	3964	366
15°	3254	3242	3357	3469	3544	906
25°	2360	2379	2547	2721	2848	1082
35°	1515	1553	1721	1924	2099	938
45°	726	770	900	1075	1242	570
55°	261	305	393	505	621	243
65°	29	56	125	150	167	49
75°	4	4	2	0	0	6
85°	0	0	0	0	0	0
90°	2	10	18	23	23	4
95°	56	208	661	288	193	59
105°	183	285	1135	1728	1626	195
115°	326	395	908	1807	2058	321
125°	448	510	822	1384	1633	399
135°	539	599	799	1128	1272	417
145°	623	668	789	958	1030	391
155°	705	730	784	860	885	325
165°	763	773	786	819	822	215
175°	791	794	789	799	796	75
180°	791	791	791	791	791	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4024.5	4024.5	4024.5	4024.5	4024.5
2.5°	4033.9	3995.8	4005.8	4005.6	3994.9
5°	3944.7	3904.7	3935.0	3948.9	3964.2
7.5°	3778.0	3746.8	3804.9	3848.4	3880.0
10°	3648.7	3622.1	3697.4	3756.8	3800.6
12.5°	3499.2	3478.6	3569.7	3651.2	3707.1
15°	3253.5	3242.1	3356.7	3469.4	3543.6
17.5°	2990.3	2989.9	3120.7	3260.6	3350.1
20°	2809.6	2815.3	2955.6	3109.8	3214.5
22.5°	2628.9	2642.2	2792.0	2952.9	3072.8
25°	2359.8	2378.8	2546.7	2721.0	2848.5
27.5°	2101.2	2129.0	2305.7	2486.8	2642.1
30°	1931.5	1963.8	2143.7	2334.2	2494.1
32.5°	1764.8	1803.2	1978.6	2180.1	2343.1
35°	1514.8	1552.9	1721.2	1923.8	2098.9
37.5°	1256.6	1293.9	1458.3	1657.7	1847.0
40°	1088.4	1130.3	1287.0	1480.2	1672.5
42.5°	935.7	977.6	1125.0	1314.9	1496.5
45°	726.2	770.0	899.5	1074.7	1242.2
47.5°	552.6	600.2	713.8	872.2	1024.9
50°	449.8	497.4	609.4	749.0	895.6
52.5°	367.2	413.3	514.4	646.0	780.4
55°	260.9	304.7	393.3	505.0	621.1
57.5°	180.3	218.0	297.5	390.7	481.7
60°	130.5	166.6	241.4	317.1	391.4
62.5°	86.8	120.0	193.1	251.1	301.0
65°	29.2	55.9	124.6	150.3	167.4
67.5°	14.8	17.8	65.4	69.1	74.8
70°	11.7	11.7	31.2	33.2	38.9
72.5°	8.6	8.6	12.5	16.0	17.1
75°	3.9	3.9	1.9	0.0	0.0
77.5°	1.9	1.9	1.6	0.0	0.0
80°	1.9	1.9	0.0	0.0	0.0
82.5°	0.4	0.4	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.5	2.0	3.6	4.6	4.6
90°	2.5	10.0	17.8	22.9	22.9
92.5°	22.9	104.0	180.6	77.6	65.6
95°	56.0	207.7	661.4	287.9	193.3
97.5°	92.6	229.4	1014.0	788.9	554.1
100°	117.0	243.9	1121.9	1137.3	918.4
102.5°	141.4	258.4	1150.4	1406.5	1213.5
105°	183.2	285.2	1134.6	1727.6	1625.6
107.5°	226.4	316.5	1069.0	1893.4	1921.8
110°	256.9	339.0	1020.2	1926.1	2047.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	283.4	361.5	971.3	1899.0	2082.5
115°	325.6	395.3	908.2	1806.9	2058.1
117.5°	365.3	432.0	868.0	1676.3	1959.4
120°	391.8	456.5	849.7	1588.8	1869.9
122.5°	414.2	478.8	837.5	1501.0	1772.2
125°	447.7	509.9	821.7	1384.5	1633.3
127.5°	477.8	539.5	813.1	1296.2	1509.6
130°	496.1	555.8	809.0	1240.8	1432.3
132.5°	514.4	574.1	804.9	1193.4	1363.1
135°	539.3	599.0	798.8	1127.7	1272.0
137.5°	566.3	620.5	795.8	1069.7	1191.1
140°	582.6	634.8	793.7	1032.8	1142.3
142.5°	598.9	647.1	791.7	1003.9	1095.5
145°	623.3	668.1	788.6	958.2	1030.3
147.5°	650.8	689.1	786.1	922.2	978.9
150°	669.1	701.4	786.1	901.6	946.4
152.5°	683.3	711.7	784.1	883.1	919.9
155°	704.7	729.6	783.6	860.4	885.3
157.5°	725.6	745.0	783.6	845.0	864.0
160°	737.8	755.2	783.6	834.8	849.7
162.5°	750.0	763.4	785.6	826.5	837.5
165°	763.2	773.2	786.1	819.2	821.7
167.5°	776.9	781.9	788.6	810.6	812.6
170°	781.0	786.0	788.6	806.5	806.5
172.5°	785.1	788.1	788.6	802.4	802.4
175°	791.2	793.7	788.6	798.8	796.3
177.5°	793.2	793.2	787.1	795.2	791.2
180°	791.2	791.2	791.2	791.2	791.2

(END OF REPORT)