

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: P518454

Luminaire Tested: **SQ4-BB-050U-100D-840-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518454
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-100D-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

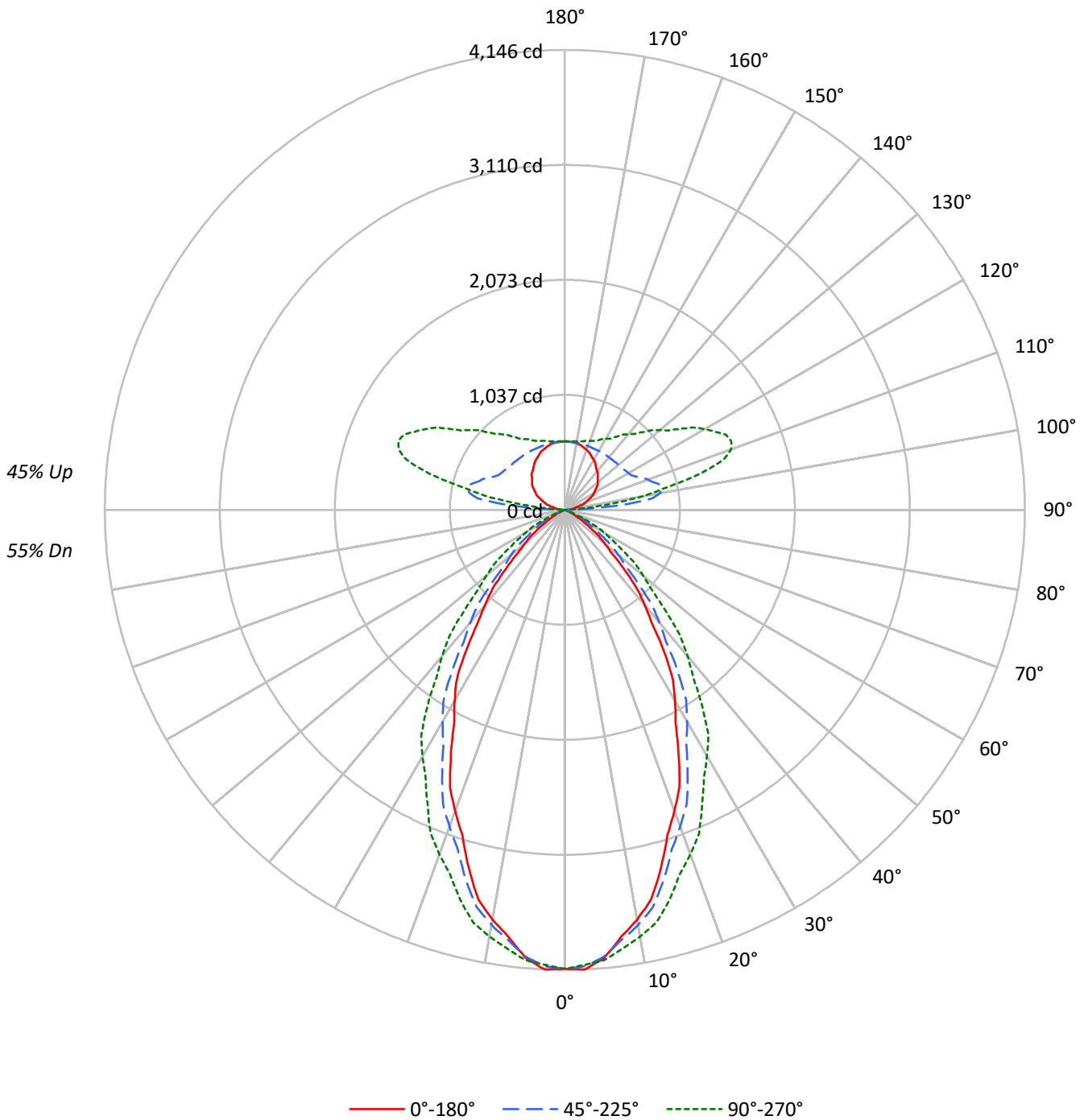
Lumens per Lamp: N/A
Luminaire Lumens: 8961.2 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 95.4
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



TEST NUMBER: P518454
CATALOG NUMBER: SQ4-BB-050U-100D-840-1D-UNV-STD-W-8

Luminous Intensity Polar Plot





TEST NUMBER: P518454

CATALOG NUMBER: SQ4-BB-050U-100D-840-1D-UNV-STD-W-8

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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55																			
1	101	97	94	91	94	91	88	86	78	77	75	67	66	65	57	56	55	50																			
2	94	87	82	78	87	82	77	74	71	68	65	61	59	57	52	51	50	45																			
3	87	79	72	67	81	74	68	64	65	61	57	56	53	51	48	46	45	41																			
4	80	71	64	59	75	67	61	56	59	54	51	52	48	46	45	42	40	37																			
5	75	65	57	52	70	61	55	50	54	49	45	47	44	41	41	39	37	34																			
6	70	59	52	46	65	56	49	45	49	44	41	44	40	37	38	36	33	31																			
7	65	54	47	42	61	51	45	40	46	41	37	41	37	34	36	33	31	28																			
8	61	50	43	38	57	47	41	36	42	37	34	38	34	31	33	30	28	26																			
9	57	46	39	34	53	44	37	33	39	34	31	35	31	28	31	28	26	24																			
10	54	42	36	31	50	40	34	30	36	32	28	33	29	26	29	26	24	22																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19083	19083	19083
5°	18777	18730	18869
10°	17569	17803	18300
15°	15972	16479	17396
20°	14178	14915	16221
25°	12347	13325	14904
30°	10576	11737	13657
35°	8769	9963	12150
40°	6737	7966	10353
45°	4870	6032	8330
50°	3318	4495	6607
55°	2157	3252	5134
60°	1237	2290	3712
65°	327	1398	1879
70°	162	432	540
75°	71	36	0
80°	53	0	0
85°	0	0	0



TEST NUMBER: P518454

CATALOG NUMBER: SQ4-BB-050U-100D-840-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	377.5	4.2
10°-20°	965.5	10.8
20°-30°	1208.7	13.5
30°-40°	1116.4	12.5
40°-50°	750.2	8.4
50°-60°	387.5	4.3
60°-70°	121.4	1.4
70°-80°	7.7	0.1
80°-90°	2.5	0.0
90°-100°	295.8	3.3
100°-110°	803.7	9.0
110°-120°	826.3	9.2
120°-130°	660.7	7.4
130°-140°	519.1	5.8
140°-150°	398.0	4.4
150°-160°	286.2	3.2
160°-170°	175.1	2.0
170°-180°	59.0	0.7
0°-30°	2551.7	28.5
0°-40°	3668.1	40.9
0°-60°	4805.7	53.6
0°-90°	4937.3	55.1
90°-120°	1925.8	21.5
90°-150°	3503.7	39.1
90°-180°	4024.0	44.9
0°-180°	8961.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4137	4137	4137	4137	4137	
5°	4055	4014	4045	4059	4075	376
15°	3344	3333	3450	3566	3642	931
25°	2426	2445	2618	2797	2928	1112
35°	1557	1596	1769	1977	2158	965
45°	746	792	925	1105	1277	586
55°	268	313	404	519	638	250
65°	30	57	128	154	172	51
75°	4	4	2	0	0	6
85°	0	0	0	0	0	0
90°	2	8	14	18	18	3
95°	44	162	515	224	151	46
105°	143	222	884	1346	1266	152
115°	254	308	707	1407	1603	250
125°	349	397	640	1078	1272	311
135°	420	467	622	878	991	325
145°	486	520	614	746	803	305
155°	549	568	610	670	690	253
165°	594	602	612	638	640	168
175°	616	618	614	622	620	59
180°	616	616	616	616	616	



TEST NUMBER: P518454

CATALOG NUMBER: SQ4-BB-050U-100D-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4136.8	4136.8	4136.8	4136.8	4136.8
2.5°	4146.5	4107.3	4117.6	4117.4	4106.4
5°	4054.8	4013.7	4044.8	4059.1	4074.8
7.5°	3883.5	3851.4	3911.1	3955.9	3988.3
10°	3750.6	3723.2	3800.6	3861.7	3906.7
12.5°	3596.9	3575.7	3669.3	3753.1	3810.6
15°	3344.3	3332.6	3450.4	3566.2	3642.5
17.5°	3073.7	3073.3	3207.8	3351.6	3443.6
20°	2888.0	2893.9	3038.1	3196.6	3304.3
22.5°	2702.3	2716.0	2870.0	3035.3	3158.6
25°	2425.7	2445.2	2617.8	2796.9	2928.0
27.5°	2159.9	2188.5	2370.0	2556.2	2715.9
30°	1985.4	2018.6	2203.5	2399.4	2563.8
32.5°	1814.0	1853.6	2033.8	2240.9	2408.5
35°	1557.1	1596.2	1769.2	1977.4	2157.5
37.5°	1291.7	1330.0	1499.0	1704.0	1898.5
40°	1118.8	1161.8	1322.9	1521.5	1719.2
42.5°	961.9	1004.9	1156.4	1351.6	1538.3
45°	746.5	791.5	924.6	1104.7	1276.9
47.5°	568.0	616.9	733.7	896.6	1053.5
50°	462.3	511.2	626.4	770.0	920.6
52.5°	377.5	424.8	528.8	664.0	802.2
55°	268.2	313.2	404.3	519.1	638.4
57.5°	185.3	224.1	305.8	401.6	495.1
60°	134.1	171.3	248.2	326.0	402.3
62.5°	89.3	123.3	198.5	258.1	309.4
65°	30.0	57.4	128.1	154.5	172.1
67.5°	15.2	18.3	67.2	71.0	76.9
70°	12.0	12.0	32.0	34.2	40.0
72.5°	8.8	8.8	12.8	16.4	17.6
75°	4.0	4.0	2.0	0.0	0.0
77.5°	2.0	2.0	1.6	0.0	0.0
80°	2.0	2.0	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°	0.4	1.6	2.8	3.6	3.6
90°	2.0	7.8	13.9	17.8	17.8
92.5°	17.8	81.0	140.7	60.4	51.1
95°	43.6	161.8	515.2	224.2	150.6
97.5°	72.1	178.7	789.9	614.5	431.6
100°	91.2	190.0	873.9	885.9	715.4
102.5°	110.2	201.2	896.1	1095.6	945.2
105°	142.7	222.1	883.8	1345.7	1266.3
107.5°	176.4	246.5	832.7	1474.8	1496.9
110°	200.1	264.1	794.6	1500.3	1595.2

TEST NUMBER: P518454

CATALOG NUMBER: SQ4-BB-050U-100D-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	220.8	281.6	756.6	1479.2	1622.2
115°	253.6	307.9	707.4	1407.4	1603.1
117.5°	284.6	336.5	676.1	1305.8	1526.3
120°	305.2	355.5	661.9	1237.6	1456.5
122.5°	322.6	373.0	652.4	1169.2	1380.4
125°	348.8	397.2	640.1	1078.4	1272.2
127.5°	372.2	420.2	633.3	1009.7	1175.9
130°	386.4	432.9	630.2	966.5	1115.7
132.5°	400.7	447.2	627.0	929.6	1061.8
135°	420.1	466.6	622.2	878.4	990.8
137.5°	441.1	483.4	619.9	833.2	927.8
140°	453.8	494.5	618.3	804.5	889.8
142.5°	466.5	504.1	616.7	782.0	853.3
145°	485.5	520.4	614.3	746.4	802.6
147.5°	506.9	536.7	612.3	718.4	762.5
150°	521.2	546.4	612.3	702.3	737.2
152.5°	532.3	554.4	610.7	687.9	716.6
155°	548.9	568.3	610.3	670.2	689.6
157.5°	565.2	580.3	610.3	658.2	673.0
160°	574.7	588.2	610.3	650.2	661.9
162.5°	584.2	594.6	611.9	643.8	652.4
165°	594.5	602.2	612.3	638.1	640.1
167.5°	605.2	609.1	614.3	631.4	632.9
170°	608.4	612.2	614.3	628.2	628.2
172.5°	611.5	613.9	614.3	625.0	625.0
175°	616.3	618.2	614.3	622.2	620.3
177.5°	617.9	617.9	613.1	619.4	616.3
180°	616.3	616.3	616.3	616.3	616.3

(END OF REPORT)