

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: P518430

Luminaire Tested: **SQ4-BB-050U-075D-840-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518430
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-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

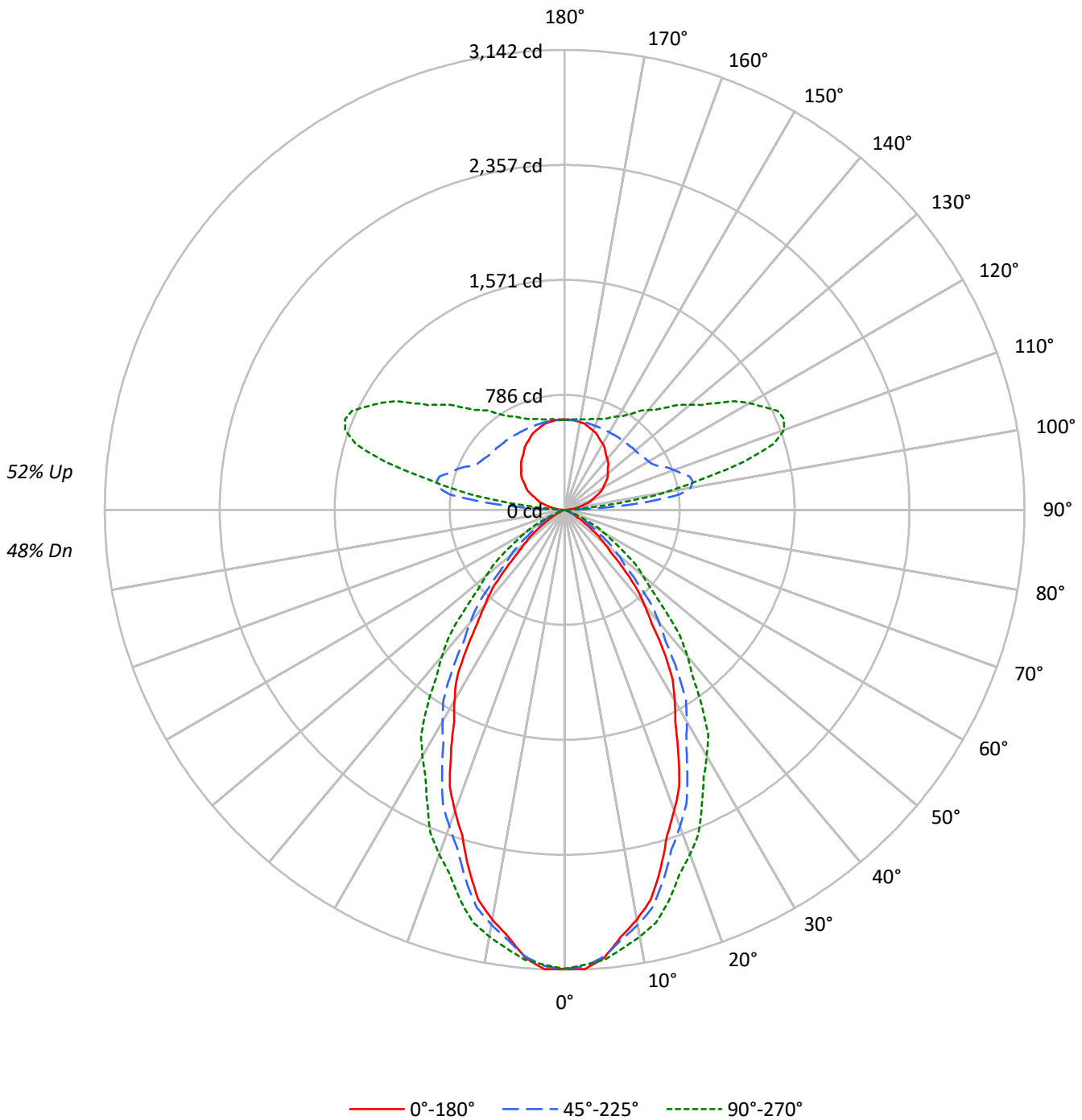
Lumens per Lamp: N/A
Luminaire Lumens: 7765.9 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 78.1
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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	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°	14461	14461	14461
5°	14229	14194	14299
10°	13313	13491	13867
15°	12103	12487	13182
20°	10744	11302	12292
25°	9356	10097	11294
30°	8014	8895	10349
35°	6645	7550	9207
40°	5105	6037	7845
45°	3691	4571	6313
50°	2514	3407	5006
55°	1634	2464	3891
60°	937	1735	2812
65°	248	1060	1423
70°	123	328	409
75°	53	27	0
80°	40	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.1	3.7
10°-20°	731.6	9.4
20°-30°	915.9	11.8
30°-40°	846.0	10.9
40°-50°	568.5	7.3
50°-60°	293.6	3.8
60°-70°	92.0	1.2
70°-80°	5.8	0.1
80°-90°	2.5	0.0
90°-100°	295.8	3.8
100°-110°	803.7	10.3
110°-120°	826.3	10.6
120°-130°	660.7	8.5
130°-140°	519.1	6.7
140°-150°	398.0	5.1
150°-160°	286.2	3.7
160°-170°	175.1	2.3
170°-180°	59.0	0.8
0°-30°	1933.6	24.9
0°-40°	2779.6	35.8
0°-60°	3641.7	46.9
0°-90°	3742.0	48.2
90°-120°	1925.8	24.8
90°-150°	3503.7	45.1
90°-180°	4024.0	51.8
0°-180°	7765.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3135	3135	3135	3135	3135	
5°	3073	3042	3065	3076	3088	285
15°	2534	2525	2615	2702	2760	706
25°	1838	1853	1984	2119	2219	843
35°	1180	1210	1341	1498	1635	731
45°	566	600	701	837	968	444
55°	203	237	306	393	484	190
65°	23	44	97	117	130	38
75°	3	3	2	0	0	4
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	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3134.8	3134.8	3134.8	3134.8	3134.8
2.5°	3142.1	3112.5	3120.3	3120.1	3111.8
5°	3072.7	3041.5	3065.1	3076.0	3087.8
7.5°	2942.8	2918.5	2963.8	2997.7	3022.3
10°	2842.1	2821.4	2880.0	2926.3	2960.4
12.5°	2725.7	2709.6	2780.6	2844.0	2887.6
15°	2534.3	2525.4	2614.6	2702.4	2760.2
17.5°	2329.2	2328.9	2430.8	2539.8	2609.5
20°	2188.5	2192.9	2302.2	2422.4	2503.9
22.5°	2047.7	2058.1	2174.8	2300.1	2393.5
25°	1838.1	1853.0	1983.7	2119.4	2218.8
27.5°	1636.7	1658.4	1796.0	1937.0	2058.0
30°	1504.5	1529.7	1669.8	1818.2	1942.8
32.5°	1374.7	1404.6	1541.2	1698.2	1825.1
35°	1179.9	1209.6	1340.7	1498.5	1634.9
37.5°	978.8	1007.9	1135.9	1291.3	1438.7
40°	847.8	880.4	1002.5	1153.0	1302.8
42.5°	728.9	761.5	876.3	1024.2	1165.7
45°	565.7	599.8	700.7	837.1	967.6
47.5°	430.4	467.5	556.0	679.4	798.3
50°	350.3	387.4	474.7	583.5	697.6
52.5°	286.0	321.9	400.7	503.2	607.9
55°	203.2	237.3	306.4	393.3	483.8
57.5°	140.4	169.8	231.7	304.3	375.2
60°	101.6	129.8	188.1	247.0	304.8
62.5°	67.6	93.4	150.4	195.6	234.5
65°	22.7	43.5	97.1	117.1	130.4
67.5°	11.5	13.9	51.0	53.8	58.2
70°	9.1	9.1	24.3	25.9	30.3
72.5°	6.7	6.7	9.7	12.5	13.3
75°	3.0	3.0	1.5	0.0	0.0
77.5°	1.5	1.5	1.2	0.0	0.0
80°	1.5	1.5	0.0	0.0	0.0
82.5°	0.3	0.3	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



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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)