

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: P518427

Luminaire Tested: **SQ4-BB-050U-075D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518427
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-12
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

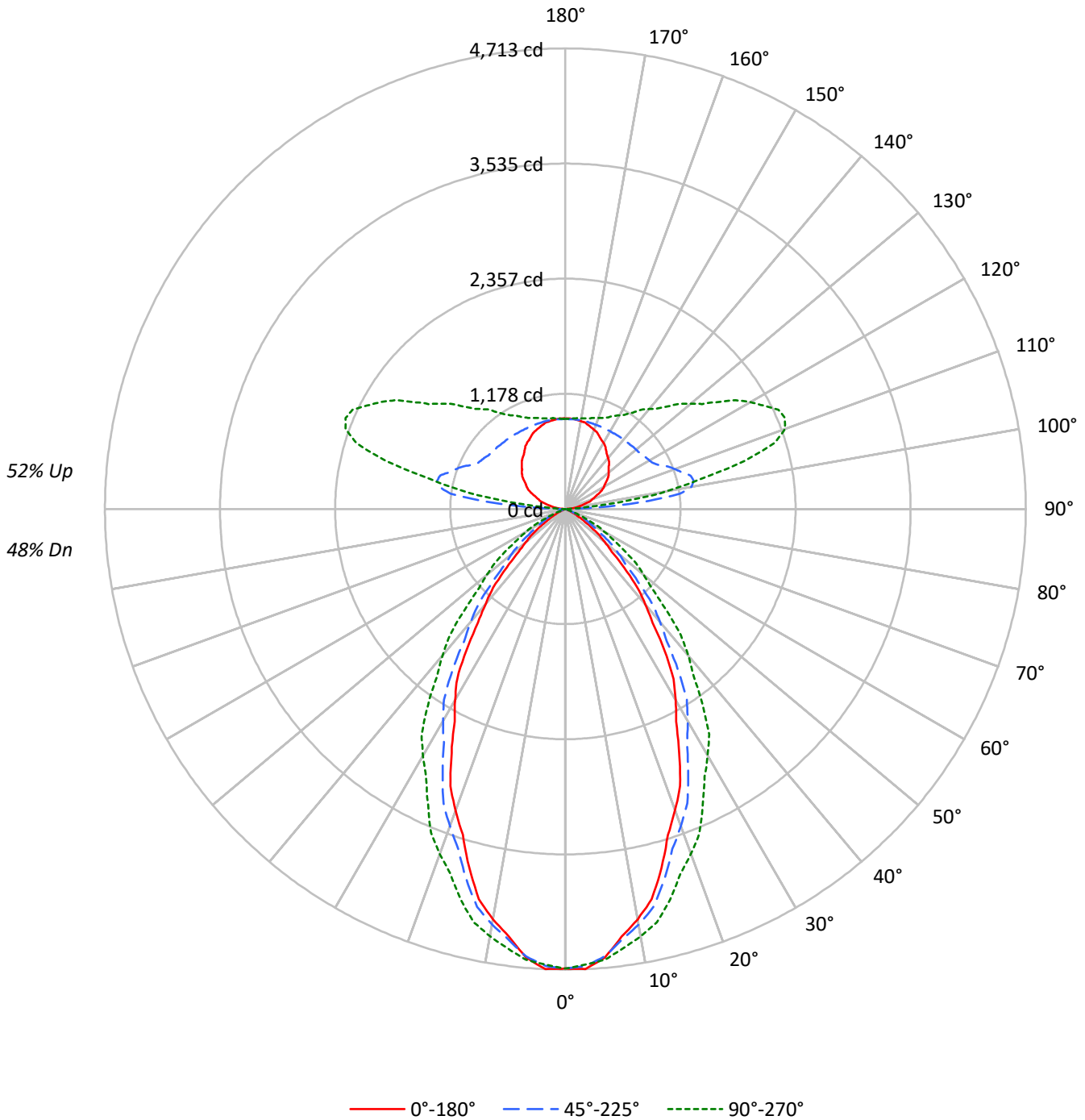
Lumens per Lamp: N/A
Luminaire Lumens: 11648.8 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

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	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	14193	14299
10°	13313	13491	13867
15°	12103	12487	13183
20°	10744	11302	12292
25°	9356	10097	11294
30°	8014	8895	10349
35°	6645	7550	9207
40°	5105	6037	7845
45°	3690	4571	6313
50°	2514	3407	5007
55°	1634	2464	3891
60°	937	1735	2813
65°	248	1060	1423
70°	122	327	409
75°	53	27	0
80°	41	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	429.1	3.7
10°-20°	1097.4	9.4
20°-30°	1373.9	11.8
30°-40°	1269.0	10.9
40°-50°	852.7	7.3
50°-60°	440.4	3.8
60°-70°	137.9	1.2
70°-80°	8.7	0.1
80°-90°	3.7	0.0
90°-100°	443.8	3.8
100°-110°	1205.5	10.3
110°-120°	1239.5	10.6
120°-130°	991.0	8.5
130°-140°	778.7	6.7
140°-150°	597.1	5.1
150°-160°	429.4	3.7
160°-170°	262.6	2.3
170°-180°	88.5	0.8
0°-30°	2900.4	24.9
0°-40°	4169.4	35.8
0°-60°	5462.6	46.9
0°-90°	5612.9	48.2
90°-120°	2888.8	24.8
90°-150°	5255.5	45.1
90°-180°	6036.0	51.8
0°-180°	11648.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4702	4702	4702	4702	4702	
5°	4609	4562	4598	4614	4632	427
15°	3801	3788	3922	4054	4140	1059
25°	2757	2779	2976	3179	3328	1264
35°	1770	1814	2011	2248	2452	1096
45°	848	900	1051	1256	1451	666
55°	305	356	460	590	726	284
65°	34	65	146	176	196	58
75°	4	4	2	0	0	6
85°	0	0	0	0	0	1
90°	3	12	21	27	27	5
95°	65	243	773	336	226	69
105°	214	333	1326	2019	1899	227
115°	380	462	1061	2111	2405	375
125°	523	596	960	1618	1908	466
135°	630	700	933	1318	1486	487
145°	728	781	922	1120	1204	457
155°	823	852	916	1005	1034	380
165°	892	903	918	957	960	252
175°	924	927	922	933	930	88
180°	924	924	924	924	924	

TEST NUMBER: P518427

CATALOG NUMBER: SQ4-BB-050U-075D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4702.3	4702.3	4702.3	4702.3	4702.3
2.5°	4713.2	4668.7	4680.4	4680.1	4667.7
5°	4609.0	4562.3	4597.6	4613.9	4631.7
7.5°	4414.3	4377.8	4445.6	4496.5	4533.5
10°	4263.2	4232.1	4320.1	4389.5	4440.6
12.5°	4088.5	4064.5	4170.8	4266.0	4331.4
15°	3801.4	3788.0	3922.0	4053.6	4140.4
17.5°	3493.8	3493.4	3646.2	3809.7	3914.2
20°	3282.7	3289.4	3453.3	3633.6	3755.9
22.5°	3071.6	3087.2	3262.2	3450.1	3590.3
25°	2757.2	2779.4	2975.6	3179.2	3328.2
27.5°	2455.1	2487.6	2694.0	2905.6	3087.1
30°	2256.7	2294.5	2504.7	2727.3	2914.2
32.5°	2062.0	2106.9	2311.8	2547.2	2737.6
35°	1769.9	1814.4	2011.0	2247.7	2452.4
37.5°	1468.2	1511.8	1703.9	1936.9	2158.0
40°	1271.7	1320.6	1503.7	1729.5	1954.2
42.5°	1093.3	1142.3	1314.4	1536.3	1748.5
45°	848.5	899.7	1051.0	1255.7	1451.4
47.5°	645.6	701.2	834.0	1019.1	1197.5
50°	525.5	581.1	712.0	875.2	1046.5
52.5°	429.0	482.9	601.0	754.7	911.8
55°	304.8	356.0	459.5	590.0	725.7
57.5°	210.7	254.7	347.6	456.5	562.8
60°	152.4	194.7	282.1	370.5	457.3
62.5°	101.5	140.2	225.7	293.4	351.7
65°	34.1	65.3	145.6	175.6	195.6
67.5°	17.3	20.8	76.4	80.7	87.4
70°	13.6	13.6	36.4	38.8	45.5
72.5°	10.0	10.0	14.6	18.7	20.0
75°	4.5	4.5	2.3	0.0	0.0
77.5°	2.3	2.3	1.8	0.0	0.0
80°	2.3	2.3	0.0	0.0	0.0
82.5°	0.5	0.5	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.6	2.3	4.2	5.4	5.4
90°	3.0	11.7	20.8	26.8	26.8
92.5°	26.8	121.5	211.0	90.6	76.7
95°	65.4	242.7	772.8	336.3	225.9
97.5°	108.2	268.0	1184.8	921.8	647.4
100°	136.7	285.0	1310.9	1328.8	1073.1
102.5°	165.3	301.9	1344.1	1643.4	1417.9
105°	214.0	333.2	1325.7	2018.6	1899.4
107.5°	264.5	369.8	1249.0	2212.3	2245.4
110°	300.2	396.1	1192.0	2250.4	2392.8

TEST NUMBER: P518427

CATALOG NUMBER: SQ4-BB-050U-075D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	331.1	422.4	1134.9	2218.8	2433.2
115°	380.5	461.9	1061.2	2111.2	2404.7
117.5°	426.8	504.7	1014.2	1958.6	2289.4
120°	457.8	533.3	992.8	1856.3	2184.8
122.5°	483.9	559.5	978.5	1753.8	2070.6
125°	523.2	595.8	960.1	1617.7	1908.3
127.5°	558.2	630.3	950.0	1514.5	1763.9
130°	579.6	649.4	945.2	1449.7	1673.5
132.5°	601.0	670.8	940.5	1394.4	1592.6
135°	630.2	699.9	933.4	1317.7	1486.2
137.5°	661.7	725.0	929.8	1249.9	1391.7
140°	680.7	741.7	927.4	1206.7	1334.6
142.5°	699.7	756.1	925.0	1173.0	1279.9
145°	728.3	780.6	921.5	1119.6	1203.8
147.5°	760.4	805.1	918.5	1077.5	1143.8
150°	781.8	819.5	918.5	1053.4	1105.8
152.5°	798.4	831.5	916.1	1031.8	1074.8
155°	823.4	852.4	915.5	1005.3	1034.4
157.5°	847.7	870.4	915.5	987.4	1009.4
160°	862.0	882.4	915.5	975.4	992.8
162.5°	876.3	892.0	917.9	965.7	978.5
165°	891.7	903.4	918.5	957.2	960.1
167.5°	907.8	913.6	921.5	947.1	949.4
170°	912.5	918.4	921.5	942.3	942.3
172.5°	917.3	920.8	921.5	937.5	937.5
175°	924.4	927.3	921.5	933.3	930.4
177.5°	926.8	926.8	919.7	929.1	924.4
180°	924.4	924.4	924.4	924.4	924.4

(END OF REPORT)