

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: P518451

Luminaire Tested: **SQ4-BB-050U-100D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518451
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-12
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

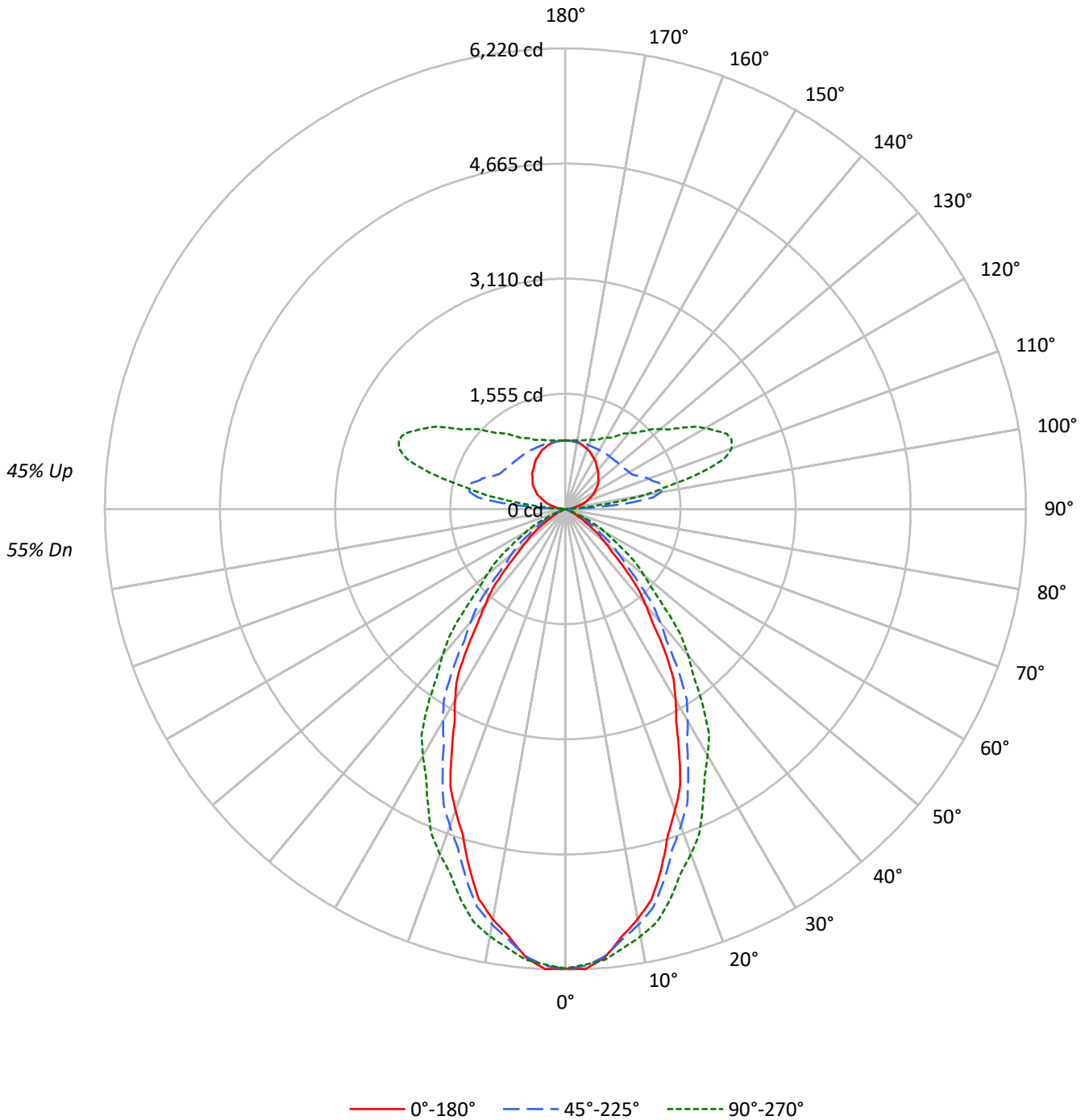
Lumens per Lamp: N/A
Luminaire Lumens: 13441.8 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 134.4
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



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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	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°	19084	19084	19084
5°	18777	18730	18869
10°	17569	17803	18300
15°	15972	16479	17396
20°	14178	14914	16221
25°	12347	13325	14904
30°	10575	11738	13656
35°	8769	9963	12150
40°	6737	7967	10353
45°	4870	6032	8330
50°	3318	4495	6607
55°	2157	3251	5135
60°	1237	2290	3711
65°	327	1398	1879
70°	162	432	540
75°	71	36	0
80°	53	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	566.3	4.2
10°-20°	1448.2	10.8
20°-30°	1813.0	13.5
30°-40°	1674.6	12.5
40°-50°	1125.3	8.4
50°-60°	581.2	4.3
60°-70°	182.0	1.4
70°-80°	11.5	0.1
80°-90°	3.8	0.0
90°-100°	443.8	3.3
100°-110°	1205.5	9.0
110°-120°	1239.5	9.2
120°-130°	991.0	7.4
130°-140°	778.7	5.8
140°-150°	597.1	4.4
150°-160°	429.4	3.2
160°-170°	262.6	2.0
170°-180°	88.5	0.7
0°-30°	3827.5	28.5
0°-40°	5502.1	40.9
0°-60°	7208.6	53.6
0°-90°	7405.9	55.1
90°-120°	2888.8	21.5
90°-150°	5255.5	39.1
90°-180°	6036.0	44.9
0°-180°	13441.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6205	6205	6205	6205	6205	
5°	6082	6020	6067	6089	6112	564
15°	5016	4999	5176	5349	5464	1397
25°	3638	3668	3927	4195	4392	1668
35°	2336	2394	2654	2966	3236	1447
45°	1120	1187	1387	1657	1915	879
55°	402	470	606	779	958	375
65°	45	86	192	232	258	76
75°	6	6	3	0	0	9
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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6205.3	6205.3	6205.3	6205.3	6205.3
2.5°	6219.7	6161.0	6176.4	6176.1	6159.6
5°	6082.2	6020.5	6067.2	6088.7	6112.2
7.5°	5825.2	5777.1	5866.6	5933.8	5982.5
10°	5625.9	5584.8	5700.9	5792.5	5860.0
12.5°	5395.3	5363.6	5504.0	5629.6	5715.9
15°	5016.4	4998.8	5175.6	5349.3	5463.8
17.5°	4610.6	4610.0	4811.7	5027.4	5165.4
20°	4332.0	4340.8	4557.1	4795.0	4956.4
22.5°	4053.4	4073.9	4305.0	4552.9	4737.9
25°	3638.5	3667.9	3926.7	4195.4	4392.0
27.5°	3239.8	3282.7	3555.0	3834.3	4073.8
30°	2978.0	3027.9	3305.3	3599.1	3845.6
32.5°	2721.1	2780.4	3050.7	3361.4	3612.7
35°	2335.6	2394.3	2653.8	2966.2	3236.2
37.5°	1937.5	1995.1	2248.5	2556.0	2847.8
40°	1678.2	1742.7	1984.4	2282.3	2578.8
42.5°	1442.8	1507.4	1734.6	2027.4	2307.4
45°	1119.8	1187.3	1387.0	1657.0	1915.3
47.5°	852.0	925.4	1100.6	1344.9	1580.3
50°	693.5	766.9	939.6	1154.9	1380.9
52.5°	566.2	637.2	793.1	996.0	1203.2
55°	402.3	469.8	606.4	778.6	957.7
57.5°	278.0	336.1	458.7	602.4	742.7
60°	201.1	256.9	372.3	488.9	603.4
62.5°	133.9	185.0	297.8	387.2	464.1
65°	45.0	86.1	192.1	231.8	258.2
67.5°	22.8	27.5	100.9	106.5	115.3
70°	18.0	18.0	48.0	51.2	60.0
72.5°	13.2	13.2	19.2	24.7	26.4
75°	6.0	6.0	3.0	0.0	0.0
77.5°	3.0	3.0	2.4	0.0	0.0
80°	3.0	3.0	0.0	0.0	0.0
82.5°	0.6	0.6	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

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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)