

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: P518403

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

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518403
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-050D-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

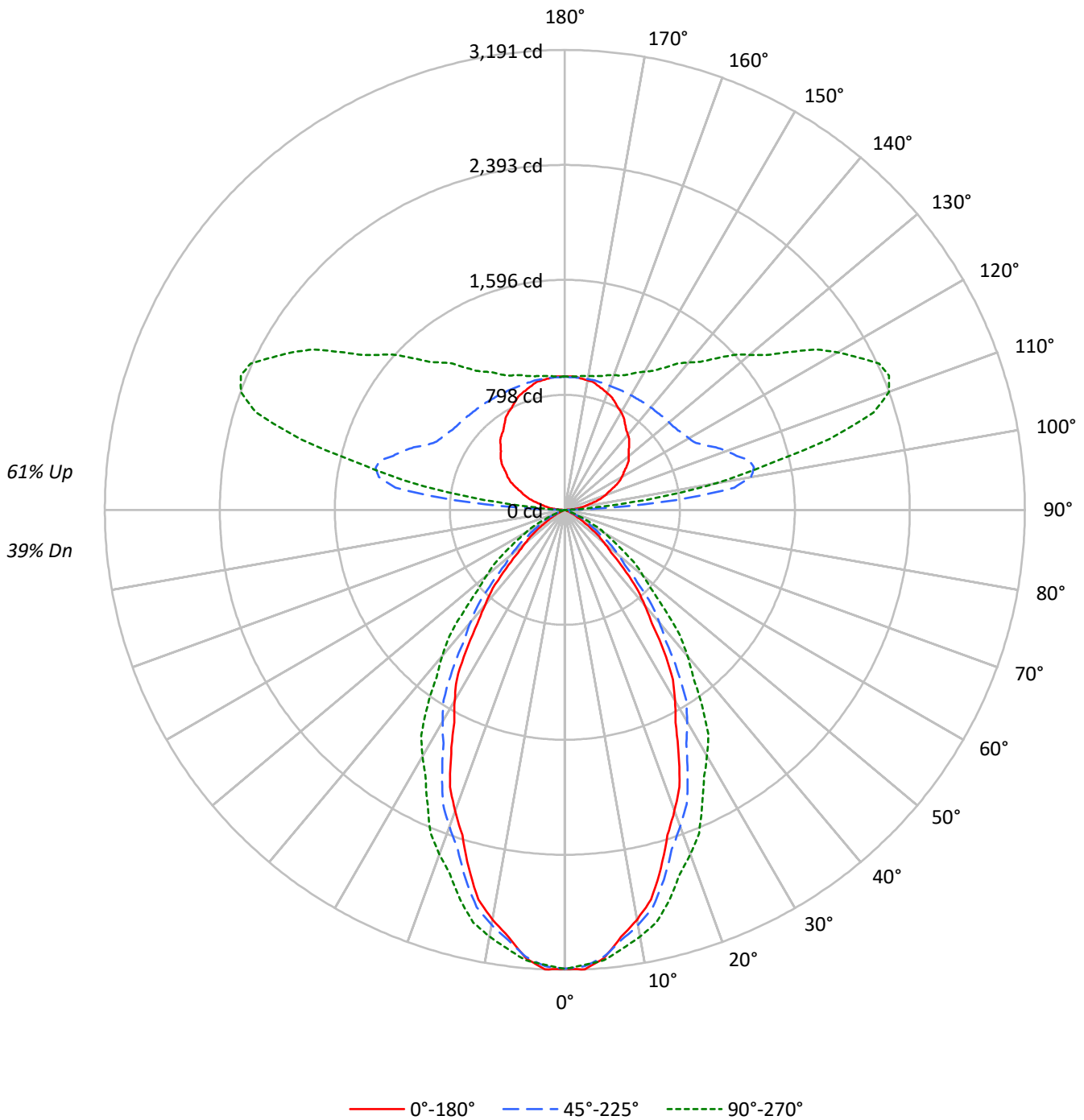
Lumens per Lamp: N/A
Luminaire Lumens: 9837.6 lumens
Efficiency: N/A
Efficacy: 123.6 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 79.6
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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39				
1	97	93	90	87	88	85	82	79	69	68	66	55	54	53	42	42	41	35				
2	89	83	77	73	81	76	71	67	63	59	57	50	48	47	39	38	37	32				
3	82	74	68	63	75	68	62	58	56	53	49	46	43	41	36	34	33	29				
4	76	66	60	54	69	61	55	51	51	47	43	42	39	37	33	31	30	26				
5	70	60	53	47	64	55	49	44	46	42	38	38	35	33	31	29	27	24				
6	65	54	47	42	59	50	44	39	42	38	34	35	32	29	28	26	25	22				
7	61	50	42	37	55	46	40	35	39	34	31	32	29	27	26	24	22	20				
8	56	45	38	33	52	42	36	32	36	31	28	30	27	24	25	22	21	18				
9	53	42	35	30	48	39	33	29	33	29	25	28	25	22	23	21	19	17				
10	49	38	32	27	45	36	30	26	31	26	23	26	23	20	22	19	18	16				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9792	9792	9792
5°	9634	9611	9682
10°	9014	9135	9390
15°	8195	8455	8926
20°	7274	7653	8323
25°	6335	6837	7647
30°	5426	6022	7007
35°	4499	5112	6234
40°	3457	4088	5312
45°	2499	3095	4274
50°	1702	2307	3390
55°	1107	1669	2635
60°	635	1175	1904
65°	168	718	964
70°	83	221	277
75°	37	18	0
80°	27	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.6	3.0
10°-20°	743.1	7.6
20°-30°	930.3	9.5
30°-40°	859.2	8.7
40°-50°	577.4	5.9
50°-60°	298.2	3.0
60°-70°	93.4	0.9
70°-80°	5.9	0.1
80°-90°	3.7	0.0
90°-100°	443.8	4.5
100°-110°	1205.5	12.3
110°-120°	1239.5	12.6
120°-130°	991.0	10.1
130°-140°	778.7	7.9
140°-150°	597.1	6.1
150°-160°	429.4	4.4
160°-170°	262.6	2.7
170°-180°	88.5	0.9
0°-30°	1963.9	20.0
0°-40°	2823.1	28.7
0°-60°	3698.7	37.6
0°-90°	3801.7	38.6
90°-120°	2888.8	29.4
90°-150°	5255.5	53.4
90°-180°	6036.0	61.4
0°-180°	9837.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3184	3184	3184	3184	3184	
5°	3121	3089	3113	3124	3136	289
15°	2574	2565	2656	2745	2804	717
25°	1867	1882	2015	2153	2254	856
35°	1198	1228	1362	1522	1660	742
45°	575	609	712	850	983	451
55°	206	241	311	400	491	193
65°	23	44	99	119	132	39
75°	3	3	2	0	0	4
85°	0	0	0	0	0	0
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°	3183.9	3183.9	3183.9	3183.9	3183.9
2.5°	3191.3	3161.2	3169.1	3168.9	3160.5
5°	3120.8	3089.1	3113.1	3124.1	3136.2
7.5°	2988.9	2964.2	3010.2	3044.6	3069.6
10°	2886.6	2865.6	2925.1	2972.1	3006.8
12.5°	2768.3	2752.1	2824.1	2888.6	2932.8
15°	2573.9	2564.9	2655.6	2744.7	2803.5
17.5°	2365.7	2365.4	2468.9	2579.6	2650.3
20°	2222.7	2227.3	2338.3	2460.3	2543.1
22.5°	2079.8	2090.3	2208.9	2336.1	2431.0
25°	1866.9	1882.0	2014.8	2152.6	2253.5
27.5°	1662.4	1684.3	1824.1	1967.4	2090.3
30°	1528.0	1553.6	1695.9	1846.7	1973.2
32.5°	1396.2	1426.6	1565.3	1724.7	1853.7
35°	1198.4	1228.5	1361.7	1521.9	1660.5
37.5°	994.1	1023.7	1153.7	1311.5	1461.2
40°	861.1	894.2	1018.2	1171.1	1323.2
42.5°	740.3	773.4	890.0	1040.2	1183.9
45°	574.6	609.2	711.6	850.2	982.8
47.5°	437.2	474.8	564.7	690.1	810.8
50°	355.8	393.5	482.1	592.6	708.6
52.5°	290.5	327.0	407.0	511.0	617.4
55°	206.4	241.0	311.2	399.5	491.4
57.5°	142.6	172.5	235.4	309.1	381.1
60°	103.2	131.8	191.0	250.9	309.6
62.5°	68.7	94.9	152.8	198.7	238.1
65°	23.1	44.2	98.6	118.9	132.5
67.5°	11.7	14.1	51.8	54.6	59.1
70°	9.2	9.2	24.6	26.3	30.8
72.5°	6.8	6.8	9.9	12.7	13.6
75°	3.1	3.1	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°	0.6	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)