

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: P518739

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

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518739
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, 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-100U-100D-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

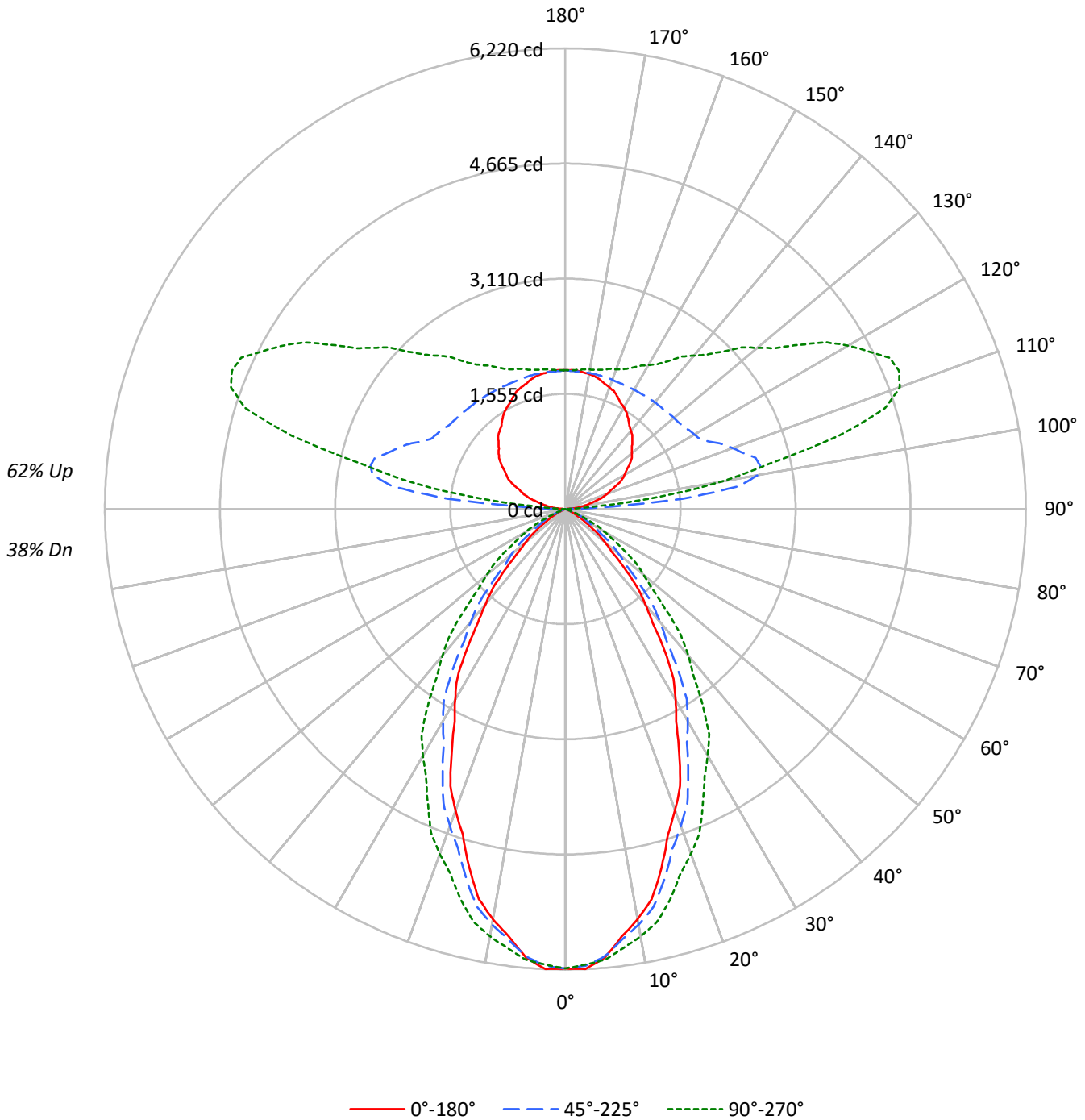
Lumens per Lamp: N/A
Luminaire Lumens: 19576.4 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 182.2
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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	96	93	89	86	87	84	82	79	69	67	65	55	54	53	42	41	41	35
2	89	83	77	73	81	75	71	67	62	59	56	50	48	46	38	37	36	31
3	82	74	67	62	75	68	62	58	56	52	49	45	43	41	35	34	33	28
4	76	66	59	54	69	61	55	50	51	46	43	41	38	36	33	31	29	25
5	70	60	53	47	64	55	49	44	46	42	38	38	35	32	30	28	27	23
6	65	54	47	42	59	50	44	39	42	37	34	35	31	29	28	26	24	21
7	60	49	42	37	55	46	39	35	39	34	31	32	29	26	26	24	22	19
8	56	45	38	33	51	42	36	31	36	31	28	30	26	24	24	22	20	18
9	53	41	35	30	48	38	32	28	33	28	25	28	24	22	23	20	19	16
10	49	38	32	27	45	36	30	26	30	26	23	26	22	20	21	19	17	15

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	2.9
10°-20°	1448.2	7.4
20°-30°	1813.0	9.3
30°-40°	1674.6	8.6
40°-50°	1125.3	5.7
50°-60°	581.2	3.0
60°-70°	182.0	0.9
70°-80°	11.5	0.1
80°-90°	4.1	0.0
90°-100°	877.2	4.5
100°-110°	2421.6	12.4
110°-120°	2497.4	12.8
120°-130°	2006.9	10.3
130°-140°	1577.2	8.1
140°-150°	1209.7	6.2
150°-160°	869.4	4.4
160°-170°	531.7	2.7
170°-180°	179.2	0.9
0°-30°	3827.5	19.6
0°-40°	5502.1	28.1
0°-60°	7208.6	36.8
0°-90°	7406.2	37.8
90°-120°	5796.2	29.6
90°-150°	10589.9	54.1
90°-180°	12170.0	62.2
0°-180°	19576.4	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°	6	12	24	27	30	9
95°	129	475	1591	654	426	138
105°	432	666	2664	4067	3830	459
115°	773	934	2146	4248	4831	760
125°	1061	1207	1945	3292	3863	944
135°	1277	1414	1891	2666	3006	988
145°	1480	1583	1867	2270	2442	927
155°	1669	1725	1852	2036	2101	769
165°	1807	1831	1861	1933	1948	509
175°	1873	1876	1864	1891	1885	178
180°	1873	1873	1873	1873	1873	



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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°	1.2	2.4	4.8	5.4	6.0
90°	6.0	11.9	24.0	27.0	30.0
92.5°	53.9	223.9	400.4	146.1	113.9
95°	128.9	474.6	1591.4	654.1	425.6
97.5°	213.4	531.6	2357.4	1814.9	1314.4
100°	275.7	565.8	2640.3	2658.9	2160.8
102.5°	335.7	604.7	2695.4	3285.3	2812.9
105°	431.6	666.0	2664.2	4067.4	3830.0
107.5°	533.4	742.1	2515.6	4444.6	4531.3
110°	605.4	792.9	2400.5	4525.7	4807.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	670.1	850.6	2292.6	4461.6	4876.6
115°	773.2	934.4	2145.8	4247.9	4831.0
117.5°	863.1	1023.7	2049.3	3947.0	4610.4
120°	923.0	1081.3	2010.9	3743.3	4411.4
122.5°	980.6	1131.8	1979.8	3553.1	4186.1
125°	1060.9	1207.4	1945.0	3291.6	3863.0
127.5°	1129.2	1275.7	1924.6	3070.4	3563.3
130°	1174.8	1321.3	1915.0	2935.2	3383.5
132.5°	1217.9	1357.4	1905.4	2821.5	3227.7
135°	1276.7	1414.4	1891.0	2666.0	3005.9
137.5°	1342.6	1468.0	1883.9	2535.4	2825.5
140°	1378.6	1501.6	1879.1	2448.3	2703.2
142.5°	1419.3	1533.0	1874.3	2370.9	2595.3
145°	1480.5	1583.0	1867.1	2269.6	2442.5
147.5°	1539.2	1628.9	1860.5	2184.2	2318.4
150°	1582.4	1655.6	1858.1	2133.3	2241.7
152.5°	1615.9	1684.5	1855.7	2089.7	2179.3
155°	1669.3	1725.0	1852.1	2036.4	2100.8
157.5°	1718.4	1761.2	1852.7	1997.5	2041.5
160°	1747.2	1785.3	1855.1	1975.7	2007.9
162.5°	1771.2	1804.6	1857.5	1956.4	1981.6
165°	1807.1	1830.6	1861.1	1933.3	1948.0
167.5°	1834.7	1848.8	1864.1	1919.3	1924.0
170°	1849.1	1860.8	1864.1	1912.0	1912.0
172.5°	1861.1	1868.1	1864.1	1902.4	1900.0
175°	1873.1	1876.0	1864.1	1890.9	1885.1
177.5°	1877.9	1875.5	1863.5	1880.2	1875.5
180°	1873.1	1873.1	1873.1	1873.1	1873.1

(END OF REPORT)