

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: P518763

Luminaire Tested: **SQ4-BB-100U-125D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518763  
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-125D-840-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

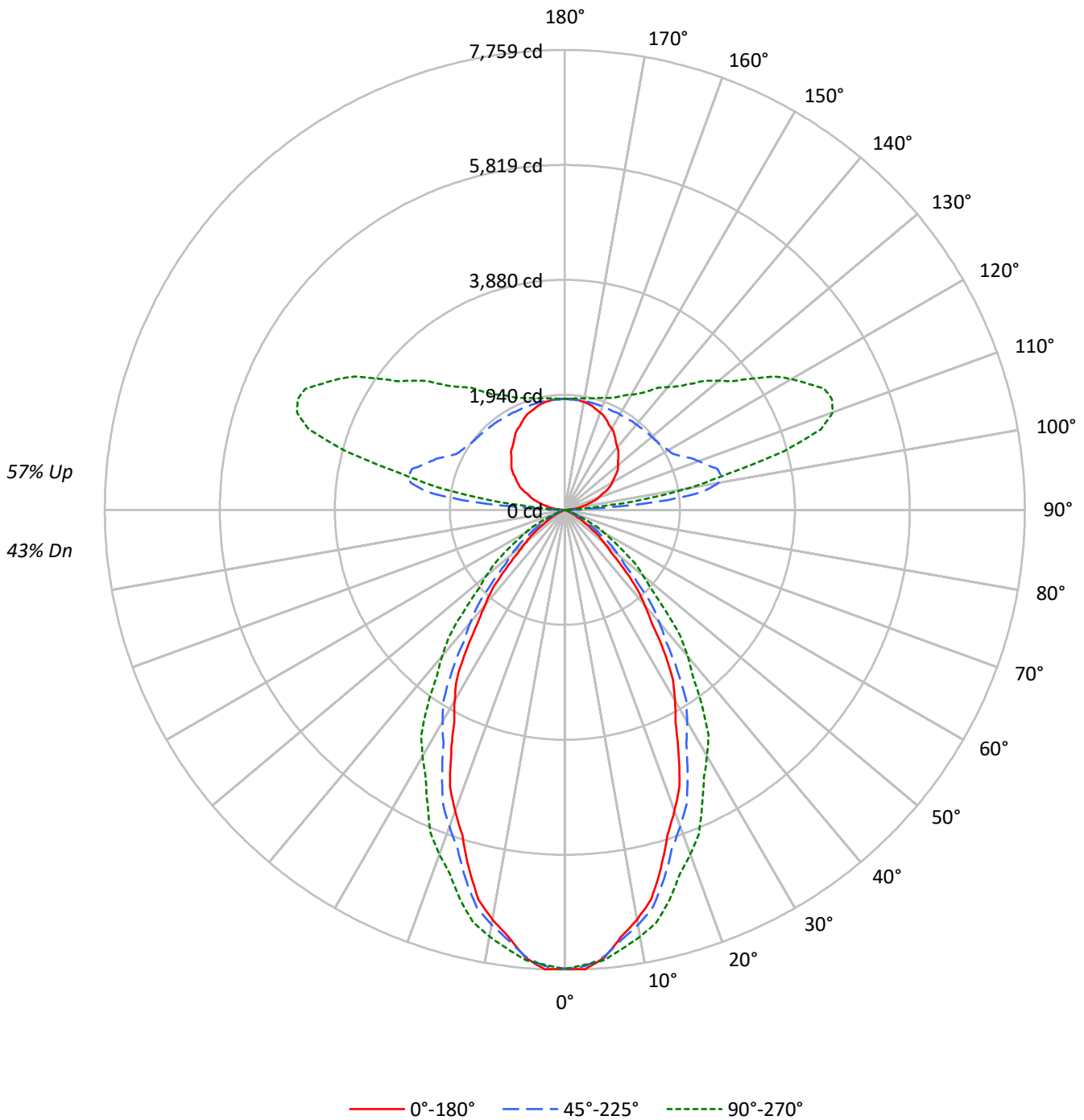
Lumens per Lamp: N/A  
Luminaire Lumens: 21408.9 lumens  
Efficiency: N/A  
Efficacy: 99.7 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 214.8  
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	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	98	94	91	88	89	86	84	81	72	70	68	59	57	56	46	46	45	39
2	90	84	79	74	83	77	73	69	65	62	59	53	51	50	43	42	40	36
3	83	75	69	64	76	70	64	60	59	55	52	49	46	44	39	38	36	32
4	77	68	61	56	71	63	57	52	53	49	45	44	41	39	36	34	33	29
5	71	61	54	49	66	57	51	46	49	44	40	41	38	35	34	31	30	26
6	66	56	48	43	61	52	45	41	44	40	36	38	34	31	31	29	27	24
7	62	51	44	39	57	47	41	37	41	36	32	35	31	29	29	27	25	22
8	58	46	39	35	53	43	37	33	38	33	29	32	29	26	27	24	23	20
9	54	43	36	31	50	40	34	30	35	30	27	30	26	24	25	23	21	19
10	51	40	33	29	47	37	31	27	32	28	25	28	24	22	24	21	19	17

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	23808	23808	23808
5°	23425	23367	23540
10°	21918	22210	22830
15°	19926	20558	21703
20°	17687	18607	20237
25°	15403	16623	18593
30°	13194	14643	17037
35°	10939	12430	15158
40°	8405	9939	12916
45°	6076	7526	10393
50°	4140	5609	8243
55°	2691	4056	6406
60°	1543	2856	4630
65°	409	1744	2344
70°	202	539	673
75°	89	44	0
80°	66	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	706.5	3.3
10°-20°	1806.7	8.4
20°-30°	2261.8	10.6
30°-40°	2089.2	9.8
40°-50°	1403.8	6.6
50°-60°	725.1	3.4
60°-70°	227.1	1.1
70°-80°	14.4	0.1
80°-90°	4.1	0.0
90°-100°	877.2	4.1
100°-110°	2421.6	11.3
110°-120°	2497.4	11.7
120°-130°	2006.9	9.4
130°-140°	1577.2	7.4
140°-150°	1209.7	5.7
150°-160°	869.4	4.1
160°-170°	531.7	2.5
170°-180°	179.2	0.8
0°-30°	4775.0	22.3
0°-40°	6864.2	32.1
0°-60°	8993.1	42.0
0°-90°	9238.7	43.2
90°-120°	5796.2	27.1
90°-150°	10589.9	49.5
90°-180°	12170.0	56.8
0°-180°	21408.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7741	7741	7741	7741	7741	
5°	7588	7511	7569	7596	7625	703
15°	6258	6236	6457	6674	6816	1743
25°	4539	4576	4899	5234	5479	2081
35°	2914	2987	3311	3700	4037	1805
45°	1397	1481	1730	2067	2390	1097
55°	502	586	756	971	1195	468
65°	56	107	240	289	322	95
75°	8	8	4	0	0	11
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	



TEST NUMBER: P518763

CATALOG NUMBER: SQ4-BB-100U-125D-840-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7741.4	7741.4	7741.4	7741.4	7741.4
2.5°	7759.4	7686.2	7705.5	7705.0	7684.5
5°	7587.9	7511.0	7569.1	7596.0	7625.3
7.5°	7267.3	7207.2	7319.0	7402.7	7463.5
10°	7018.6	6967.3	7112.2	7226.5	7310.7
12.5°	6731.0	6691.4	6866.5	7023.3	7131.0
15°	6258.3	6236.3	6456.8	6673.5	6816.4
17.5°	5752.0	5751.2	6002.9	6272.0	6444.1
20°	5404.4	5415.4	5685.3	5982.0	6183.4
22.5°	5056.8	5082.5	5370.7	5680.0	5910.8
25°	4539.2	4575.9	4898.8	5233.9	5479.3
27.5°	4041.9	4095.3	4435.1	4783.5	5082.3
30°	3715.3	3777.5	4123.5	4490.1	4797.7
32.5°	3394.7	3468.7	3805.9	4193.6	4507.0
35°	2913.8	2987.0	3310.8	3700.5	4037.4
37.5°	2417.2	2489.0	2805.2	3188.7	3552.7
40°	2093.6	2174.2	2475.6	2847.3	3217.2
42.5°	1800.0	1880.5	2164.0	2529.2	2878.6
45°	1397.0	1481.2	1730.3	2067.2	2389.5
47.5°	1062.9	1154.5	1373.0	1677.8	1971.5
50°	865.2	956.7	1172.3	1440.8	1722.8
52.5°	706.4	795.0	989.5	1242.6	1501.1
55°	501.9	586.1	756.5	971.4	1194.7
57.5°	346.8	419.3	572.3	751.5	926.6
60°	250.9	320.5	464.4	610.0	752.8
62.5°	167.0	230.8	371.5	483.1	579.0
65°	56.2	107.4	239.7	289.1	322.1
67.5°	28.5	34.3	125.8	132.8	143.8
70°	22.5	22.5	59.9	63.9	74.9
72.5°	16.5	16.5	24.0	30.8	33.0
75°	7.5	7.5	3.7	0.0	0.0
77.5°	3.7	3.7	3.0	0.0	0.0
80°	3.7	3.7	0.0	0.0	0.0
82.5°	0.7	0.7	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



TEST NUMBER: P518763

CATALOG NUMBER: SQ4-BB-100U-125D-840-1D-UNV-STD-W-12

**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)