

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: P518431

Luminaire Tested: **SQ4-BB-050U-075D-930-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518431
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-930-1D-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

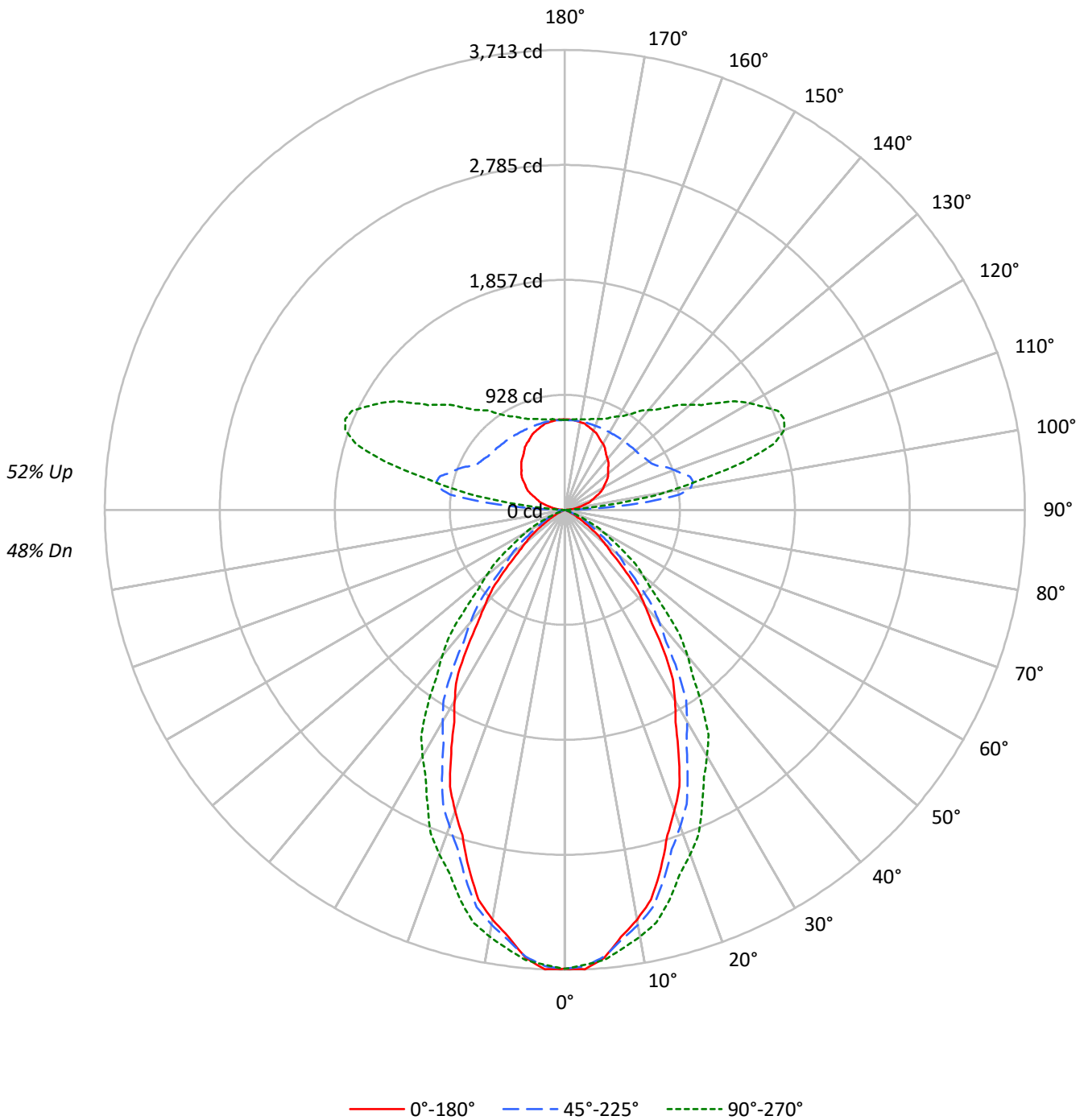
Lumens per Lamp: N/A
Luminaire Lumens: 9177.3 lumens
Efficiency: N/A
Efficacy: 86.9 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

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	50	30	10	0	
RCR																						
0	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48	48	48	48	
1	99	95	92	89	91	88	85	83	75	73	71	62	61	60	51	50	49	44	44	44	44	
2	92	85	80	76	84	79	75	71	68	64	62	57	55	53	47	45	44	40	40	40	40	
3	85	77	70	65	78	71	66	62	61	57	54	52	49	47	43	41	40	36	36	36	36	
4	79	69	62	57	73	64	58	54	56	51	48	47	44	42	40	38	36	32	32	32	32	
5	73	63	55	50	67	59	52	48	51	46	42	44	40	37	37	34	33	29	29	29	29	
6	68	57	50	45	63	53	47	42	47	42	38	40	37	34	34	32	30	27	27	27	27	
7	63	52	45	40	58	49	43	38	43	38	34	37	33	31	32	29	27	25	25	25	25	
8	59	48	41	36	55	45	39	34	40	35	31	34	31	28	30	27	25	23	23	23	23	
9	55	44	37	33	51	42	35	31	37	32	28	32	28	26	28	25	23	21	21	21	21	
10	52	41	34	30	48	38	33	29	34	29	26	30	26	24	26	23	21	20	20	20	20	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11393	11393	11393
5°	11210	11182	11265
10°	10489	10629	10925
15°	9535	9838	10386
20°	8464	8904	9684
25°	7371	7955	8898
30°	6314	7008	8153
35°	5235	5948	7253
40°	4022	4756	6181
45°	2907	3601	4973
50°	1981	2684	3944
55°	1288	1941	3065
60°	739	1367	2216
65°	196	835	1121
70°	97	258	322
75°	43	21	0
80°	32	0	0
85°	0	0	0



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CATALOG NUMBER: SQ4-BB-050U-075D-930-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	338.1	3.7
10°-20°	864.6	9.4
20°-30°	1082.4	11.8
30°-40°	999.8	10.9
40°-50°	671.8	7.3
50°-60°	347.0	3.8
60°-70°	108.7	1.2
70°-80°	6.9	0.1
80°-90°	2.9	0.0
90°-100°	349.6	3.8
100°-110°	949.7	10.3
110°-120°	976.5	10.6
120°-130°	780.7	8.5
130°-140°	613.5	6.7
140°-150°	470.4	5.1
150°-160°	338.3	3.7
160°-170°	206.9	2.3
170°-180°	69.7	0.8
0°-30°	2285.0	24.9
0°-40°	3284.8	35.8
0°-60°	4303.6	46.9
0°-90°	4422.0	48.2
90°-120°	2275.9	24.8
90°-150°	4140.4	45.1
90°-180°	4755.0	51.8
0°-180°	9177.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3705	3705	3705	3705	3705	
5°	3631	3594	3622	3635	3649	337
15°	2995	2984	3090	3194	3262	834
25°	2172	2190	2344	2505	2622	996
35°	1394	1429	1584	1771	1932	864
45°	668	709	828	989	1144	525
55°	240	280	362	465	572	224
65°	27	51	115	138	154	45
75°	4	4	2	0	0	5
85°	0	0	0	0	0	0
90°	2	9	16	21	21	4
95°	52	191	609	265	178	55
105°	169	262	1044	1590	1496	179
115°	300	364	836	1663	1894	296
125°	412	469	756	1274	1503	367
135°	496	551	735	1038	1171	384
145°	574	615	726	882	948	360
155°	649	672	721	792	815	299
165°	702	712	724	754	756	198
175°	728	731	726	735	733	69
180°	728	728	728	728	728	



TEST NUMBER: P518431

CATALOG NUMBER: SQ4-BB-050U-075D-930-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3704.6	3704.6	3704.6	3704.6	3704.6
2.5°	3713.2	3678.1	3687.4	3687.1	3677.3
5°	3631.1	3594.3	3622.1	3635.0	3649.0
7.5°	3477.7	3448.9	3502.4	3542.5	3571.6
10°	3358.7	3334.1	3403.5	3458.2	3498.5
12.5°	3221.0	3202.1	3285.9	3360.9	3412.4
15°	2994.8	2984.3	3089.8	3193.5	3261.9
17.5°	2752.5	2752.2	2872.6	3001.4	3083.7
20°	2586.2	2591.5	2720.6	2862.6	2959.0
22.5°	2419.9	2432.2	2570.1	2718.1	2828.5
25°	2172.2	2189.7	2344.3	2504.6	2622.1
27.5°	1934.2	1959.8	2122.4	2289.1	2432.1
30°	1777.9	1807.7	1973.3	2148.7	2295.9
32.5°	1624.5	1659.9	1821.3	2006.8	2156.8
35°	1394.4	1429.4	1584.3	1770.8	1932.0
37.5°	1156.7	1191.1	1342.4	1525.9	1700.1
40°	1001.9	1040.4	1184.7	1362.5	1539.5
42.5°	861.4	899.9	1035.6	1210.3	1377.5
45°	668.5	708.8	828.0	989.2	1143.5
47.5°	508.6	552.4	657.0	802.9	943.4
50°	414.0	457.8	561.0	689.5	824.4
52.5°	338.0	380.4	473.5	594.6	718.3
55°	240.2	280.5	362.0	464.8	571.7
57.5°	166.0	200.7	273.9	359.6	443.4
60°	120.1	153.4	222.2	291.9	360.2
62.5°	79.9	110.4	177.8	231.2	277.1
65°	26.9	51.4	114.7	138.4	154.1
67.5°	13.6	16.4	60.2	63.6	68.8
70°	10.8	10.8	28.7	30.6	35.8
72.5°	7.9	7.9	11.5	14.7	15.8
75°	3.6	3.6	1.8	0.0	0.0
77.5°	1.8	1.8	1.4	0.0	0.0
80°	1.8	1.8	0.0	0.0	0.0
82.5°	0.4	0.4	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.5	1.8	3.3	4.2	4.2
90°	2.3	9.2	16.4	21.1	21.1
92.5°	21.1	95.7	166.3	71.4	60.4
95°	51.5	191.2	608.9	265.0	178.0
97.5°	85.2	211.2	933.4	726.2	510.0
100°	107.7	224.5	1032.7	1046.9	845.4
102.5°	130.2	237.8	1059.0	1294.7	1117.0
105°	168.6	262.5	1044.4	1590.3	1496.4
107.5°	208.4	291.3	984.0	1742.9	1769.0
110°	236.5	312.1	939.1	1772.9	1885.1

TEST NUMBER: P518431

CATALOG NUMBER: SQ4-BB-050U-075D-930-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	260.9	332.8	894.1	1748.0	1917.0
115°	299.7	363.9	836.0	1663.2	1894.5
117.5°	336.3	397.6	799.0	1543.1	1803.6
120°	360.6	420.2	782.2	1462.5	1721.2
122.5°	381.2	440.8	770.9	1381.7	1631.3
125°	412.2	469.4	756.4	1274.4	1503.4
127.5°	439.8	496.6	748.4	1193.2	1389.6
130°	456.6	511.6	744.7	1142.1	1318.4
132.5°	473.5	528.5	740.9	1098.6	1254.7
135°	496.5	551.4	735.3	1038.1	1170.9
137.5°	521.3	571.2	732.5	984.7	1096.4
140°	536.3	584.4	730.6	950.7	1051.5
142.5°	551.3	595.7	728.8	924.1	1008.4
145°	573.7	615.0	726.0	882.0	948.4
147.5°	599.0	634.3	723.6	848.9	901.1
150°	615.9	645.7	723.6	829.9	871.1
152.5°	629.0	655.1	721.7	812.9	846.8
155°	648.7	671.6	721.3	792.0	814.9
157.5°	667.9	685.7	721.3	777.9	795.3
160°	679.1	695.1	721.3	768.4	782.2
162.5°	690.4	702.7	723.1	760.8	770.9
165°	702.5	711.7	723.6	754.1	756.4
167.5°	715.2	719.8	726.0	746.1	748.0
170°	718.9	723.5	726.0	742.3	742.3
172.5°	722.7	725.4	726.0	738.6	738.6
175°	728.3	730.6	726.0	735.3	733.0
177.5°	730.2	730.2	724.5	732.0	728.3
180°	728.3	728.3	728.3	728.3	728.3

(END OF REPORT)