

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

Brand: CORELITE

Report Number: P853518

Luminaire Tested: SQ2-BBM-075U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853518
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2104-222-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-075U-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

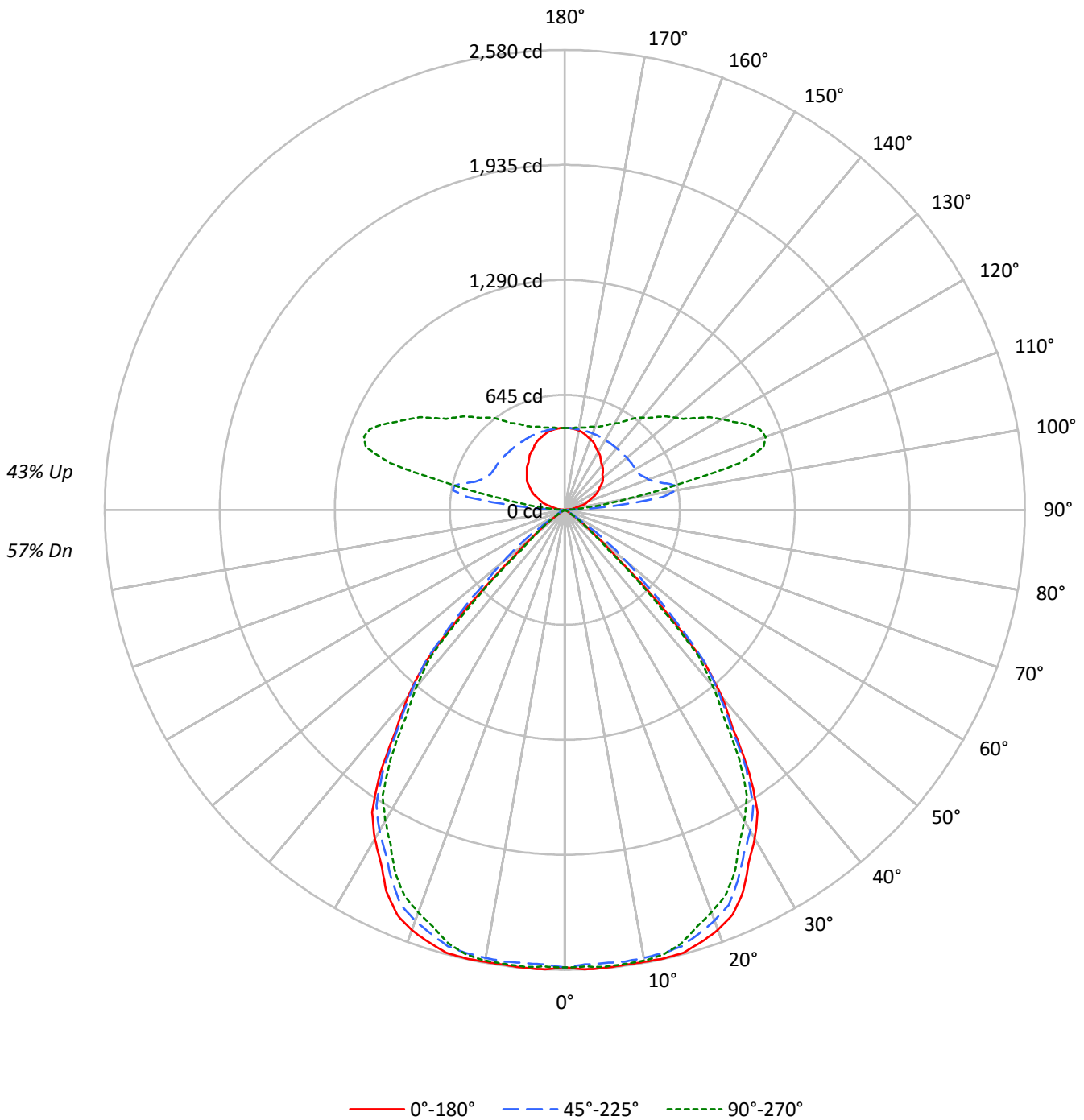
Lumens per Lamp: N/A
Luminaire Lumens: 6690.9 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 61.4
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	0
RCR																		
0	109	109	109	109	101	101	101	101	87	87	87	75	75	75	63	63	63	57
1	102	98	95	92	95	92	89	87	80	78	76	69	68	67	59	58	58	53
2	95	89	84	79	88	83	79	75	73	70	67	64	61	60	55	54	52	48
3	88	80	74	69	82	75	70	66	67	63	60	59	56	53	51	49	47	44
4	82	73	66	61	76	69	63	58	61	57	53	54	51	48	47	45	43	40
5	76	66	59	54	71	63	56	52	56	51	48	50	46	43	44	41	39	36
6	71	60	53	48	66	57	51	46	51	46	43	46	42	39	41	38	36	33
7	66	55	48	43	62	53	46	42	47	42	39	43	39	36	38	35	33	30
8	62	51	44	39	58	48	42	38	44	39	35	39	36	33	35	32	30	28
9	58	47	40	36	55	45	39	35	41	36	32	37	33	30	33	30	28	26
10	55	44	37	33	51	42	36	32	38	33	30	34	30	28	31	28	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	41448	41448	41448
5°	41809	41358	41700
10°	42214	41837	42104
15°	42992	42364	42108
20°	43101	42142	41283
25°	42136	40884	40078
30°	39720	38769	37531
35°	35585	34958	33557
40°	28869	28382	27267
45°	17571	19920	15769
50°	5604	11258	5122
55°	1951	4087	2004
60°	155	1179	32
65°	0	73	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 19920 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.3	3.7
10°-20°	717.4	10.7
20°-30°	1057.5	15.8
30°-40°	1082.9	16.2
40°-50°	624.0	9.3
50°-60°	109.3	1.6
60°-70°	4.2	0.1
70°-80°	0.0	0.0
80°-90°	0.6	0.0
90°-100°	174.1	2.6
100°-110°	577.1	8.6
110°-120°	572.7	8.6
120°-130°	466.5	7.0
130°-140°	379.1	5.7
140°-150°	294.4	4.4
150°-160°	212.1	3.2
160°-170°	129.9	1.9
170°-180°	43.9	0.7
0°-30°	2020.2	30.2
0°-40°	3103.1	46.4
0°-60°	3836.4	57.3
0°-90°	3841.2	57.4
90°-120°	1323.9	19.8
90°-150°	2463.9	36.8
90°-180°	2850.0	42.6
0°-180°	6690.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2567	2567	2567	2567	2567	
5°	2580	2574	2552	2582	2573	246
15°	2572	2593	2534	2534	2519	724
25°	2365	2383	2295	2274	2250	1079
35°	1805	1795	1774	1731	1702	1108
45°	770	861	872	829	691	589
55°	69	83	145	79	71	77
65°	0	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	4	4	1
95°	25	73	315	113	75	28
105°	101	144	578	1090	1019	107
115°	180	216	465	968	1132	178
125°	252	280	456	761	897	224
135°	301	332	453	653	737	233
145°	350	376	452	562	615	219
155°	399	413	455	502	520	184
165°	438	443	456	475	479	124
175°	458	458	459	462	461	44
180°	460	460	460	460	460	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2567.1	2567.1	2567.1	2567.1	2567.1
2.5°	2580.2	2573.5	2553.3	2573.9	2564.8
5°	2579.6	2574.0	2551.8	2582.3	2572.9
7.5°	2574.8	2573.5	2556.4	2580.4	2569.6
10°	2574.8	2579.5	2551.8	2576.6	2568.1
12.5°	2576.4	2587.1	2547.1	2566.5	2554.3
15°	2572.0	2592.6	2534.4	2534.1	2519.1
17.5°	2543.1	2567.6	2494.2	2474.4	2454.2
20°	2508.5	2536.7	2452.7	2424.3	2402.7
22.5°	2458.5	2485.9	2400.4	2368.1	2346.5
25°	2365.2	2383.0	2294.9	2274.2	2249.7
27.5°	2232.8	2243.3	2174.9	2139.0	2117.0
30°	2130.5	2138.0	2079.5	2040.4	2013.1
32.5°	2012.0	2009.0	1966.4	1926.6	1900.8
35°	1805.4	1795.0	1773.6	1730.7	1702.5
37.5°	1551.3	1549.4	1528.2	1490.9	1461.4
40°	1369.7	1367.8	1346.6	1313.4	1293.7
42.5°	1149.6	1185.3	1160.4	1119.7	1107.5
45°	769.5	860.7	872.4	828.8	690.6
47.5°	397.0	518.9	607.5	473.2	327.8
50°	223.1	313.4	448.2	253.8	203.9
52.5°	145.4	189.1	312.8	162.0	137.0
55°	69.3	83.4	145.2	78.7	71.2
57.5°	24.8	38.4	63.5	38.9	24.0
60°	4.8	16.1	36.5	11.3	1.0
62.5°	1.7	4.7	21.2	3.0	1.0
65°	0.0	0.9	1.9	0.9	0.0
67.5°	0.0	0.8	0.8	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.2	0.6	0.8	0.8
90°	0.0	0.9	2.9	3.8	3.8
92.5°	7.6	29.4	86.7	28.1	23.6
95°	24.8	73.2	315.4	112.6	75.3
97.5°	45.6	96.2	550.6	321.1	203.0
100°	60.0	108.5	637.5	547.6	363.1
102.5°	76.0	123.0	632.2	836.8	632.2
105°	101.0	143.9	577.5	1089.6	1018.7
107.5°	126.6	164.8	525.1	1115.3	1169.1
110°	141.0	179.2	498.4	1089.8	1198.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	156.3	193.7	482.4	1044.8	1183.6
115°	180.1	215.5	465.1	968.1	1132.1
117.5°	203.7	235.2	458.8	894.9	1067.0
120°	218.2	249.0	456.5	849.1	1015.9
122.5°	231.2	261.2	456.5	811.4	965.6
125°	251.6	279.5	456.5	760.7	896.8
127.5°	268.4	295.8	455.3	722.3	838.6
130°	278.3	307.2	454.6	700.0	804.3
132.5°	287.4	317.1	453.8	681.4	775.3
135°	301.1	331.9	452.7	652.8	736.7
137.5°	316.0	345.6	451.5	625.1	699.1
140°	325.9	354.8	450.8	606.7	674.7
142.5°	335.1	363.2	451.5	588.2	648.8
145°	349.7	375.8	451.7	561.6	614.7
147.5°	365.6	387.4	451.9	539.0	578.5
150°	375.5	395.0	452.7	525.9	559.4
152.5°	384.6	403.4	453.4	515.0	541.9
155°	399.3	413.3	454.6	501.7	520.3
157.5°	413.6	424.4	455.7	492.2	505.5
160°	421.2	430.5	456.5	485.3	495.6
162.5°	428.8	435.9	456.5	480.7	488.7
165°	438.4	443.0	456.5	474.7	479.4
167.5°	447.1	449.6	457.4	469.3	471.7
170°	451.7	452.6	457.4	467.0	467.9
172.5°	454.8	455.7	458.2	464.7	464.9
175°	458.4	458.4	459.3	462.2	461.2
177.5°	460.3	460.3	459.5	461.0	459.5
180°	460.3	460.3	460.3	460.3	460.3



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	1.47	2.21	2.40	3.13	4.30	0.93	1.68	1.86	2.59	3.77
	3H	1.28	1.93	2.22	2.86	4.06	0.74	1.40	1.68	2.33	3.53
	4H	1.17	1.79	2.13	2.72	3.93	0.64	1.25	1.59	2.19	3.40
	6H	1.06	1.63	2.03	2.57	3.79	0.53	1.09	1.49	2.03	3.25
	8H	1.00	1.54	1.97	2.49	3.71	0.47	1.00	1.44	1.96	3.18
	12H	0.94	1.45	1.92	2.40	3.64	0.41	0.92	1.38	1.86	3.10
4H	2H	1.18	1.80	2.14	2.73	3.94	0.65	1.26	1.61	2.20	3.41
	3H	0.98	1.49	1.95	2.45	3.67	0.45	0.95	1.42	1.92	3.14
	4H	0.87	1.33	1.84	2.29	3.53	0.34	0.80	1.31	1.75	3.00
	6H	0.76	1.15	1.75	2.13	3.38	0.23	0.62	1.21	1.60	2.85
	8H	0.69	1.06	1.68	2.03	3.29	0.16	0.53	1.15	1.50	2.76
	12H	0.62	0.95	1.63	1.94	3.20	0.09	0.42	1.09	1.41	2.67
8H	4H	0.69	1.06	1.68	2.03	3.29	0.16	0.53	1.15	1.50	2.76
	6H	0.57	0.87	1.58	1.89	3.15	0.04	0.34	1.05	1.36	2.62
	8H	0.51	0.78	1.53	1.78	3.06	0.00	0.24	1.00	1.25	2.53
	12H	0.45	0.68	1.46	1.67	3.00	0.00	0.15	0.93	1.14	2.47
12H	4H	0.62	0.95	1.63	1.94	3.20	0.09	0.42	1.09	1.41	2.67
	6H	0.51	0.78	1.53	1.78	3.06	0.00	0.24	1.00	1.25	2.53
	8H	0.45	0.68	1.46	1.67	3.00	0.00	0.15	0.93	1.14	2.47