

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: P853543

Luminaire Tested: SQ2-BBM-100U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853543
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2104-222-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-100U-100D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

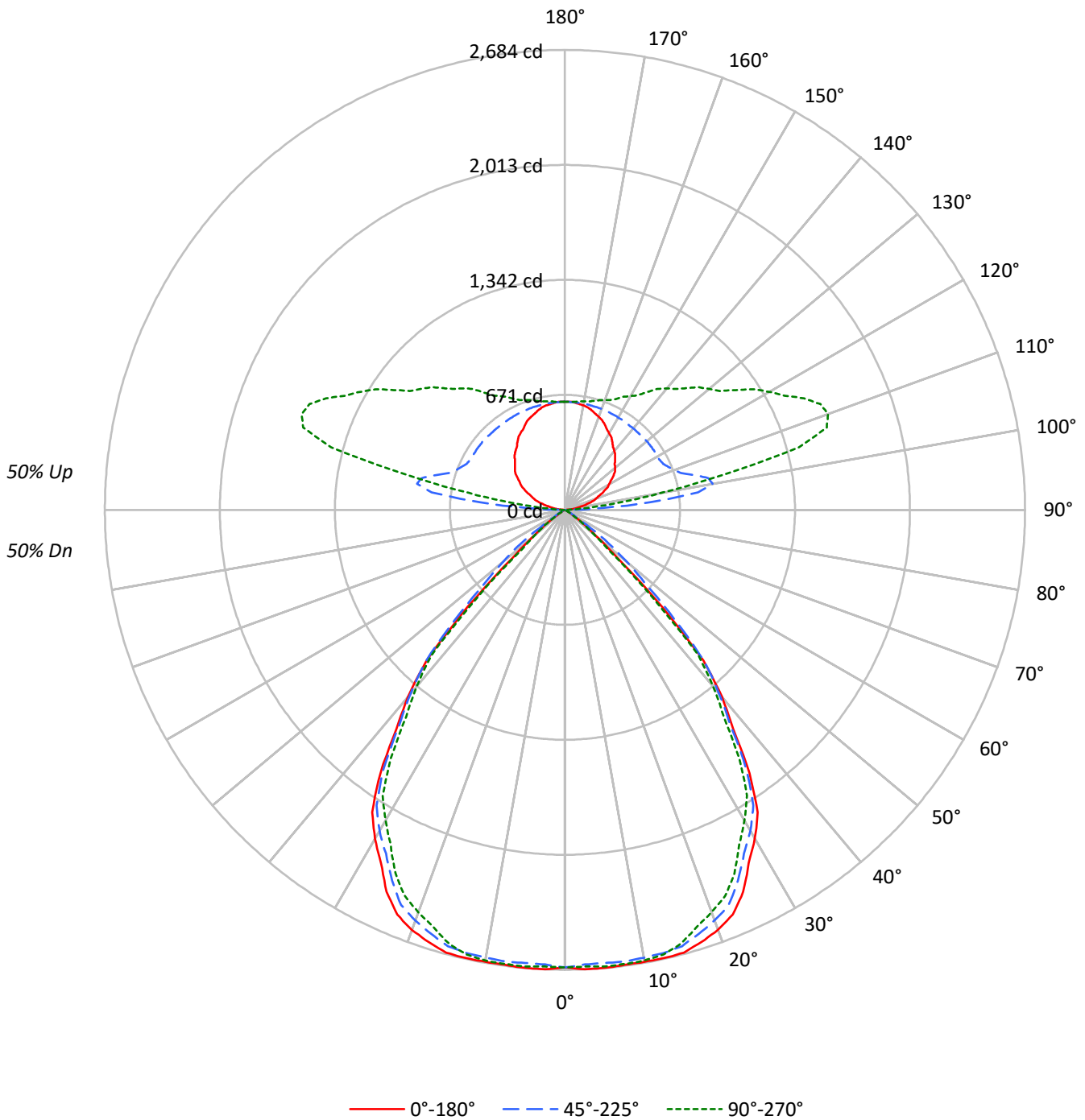
Lumens per Lamp: N/A
Luminaire Lumens: 7923.2 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.7
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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	57	57	57	50
1	100	96	93	90	92	89	87	84	76	74	73	64	63	62	53	52	52	46
2	93	87	82	77	86	81	76	73	69	66	64	59	57	55	49	48	47	42
3	86	78	72	67	80	73	68	63	63	59	56	54	51	49	46	44	42	39
4	80	71	64	59	74	66	60	56	58	53	50	50	47	44	42	40	38	35
5	74	64	57	52	69	60	54	49	53	48	44	46	42	40	39	37	35	32
6	69	58	51	46	64	55	49	44	48	44	40	42	39	36	36	34	32	29
7	64	53	46	41	60	50	44	40	44	40	36	39	35	33	34	31	29	27
8	60	49	42	37	56	46	40	36	41	36	33	36	32	30	32	29	27	25
9	56	45	38	34	52	43	37	32	38	33	30	34	30	27	29	27	25	23
10	53	42	35	31	49	40	34	30	35	31	27	31	28	25	28	25	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	43109	43109	43109
5°	43485	43015	43371
10°	43906	43512	43791
15°	44714	44062	43794
20°	44828	43831	42936
25°	43823	42523	41685
30°	41311	40322	39036
35°	37010	36360	34901
40°	30024	29518	28359
45°	18274	20717	16401
50°	5830	11710	5328
55°	2027	4253	2083
60°	161	1227	32
65°	0	76	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: 20717 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.2	3.2
10°-20°	746.2	9.4
20°-30°	1099.8	13.9
30°-40°	1126.3	14.2
40°-50°	649.0	8.2
50°-60°	113.7	1.4
60°-70°	4.4	0.1
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	263.6	3.3
100°-110°	797.1	10.1
110°-120°	778.2	9.8
120°-130°	635.9	8.0
130°-140°	519.0	6.6
140°-150°	404.0	5.1
150°-160°	291.3	3.7
160°-170°	178.3	2.3
170°-180°	60.2	0.8
0°-30°	2101.2	26.5
0°-40°	3227.5	40.7
0°-60°	3990.2	50.4
0°-90°	3996.0	50.4
90°-120°	1838.8	23.2
90°-150°	3397.8	42.9
90°-180°	3928.0	49.6
0°-180°	7923.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2670	2670	2670	2670	2670	
5°	2683	2677	2654	2686	2676	256
15°	2675	2696	2636	2636	2620	753
25°	2460	2478	2387	2365	2340	1123
35°	1878	1867	1845	1800	1771	1152
45°	800	895	907	862	718	613
55°	72	87	151	82	74	80
65°	0	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	2	12	7	6	2
95°	33	103	497	184	116	39
105°	139	195	783	1486	1413	146
115°	247	294	633	1310	1539	244
125°	345	382	624	1034	1218	306
135°	413	457	620	892	1004	320
145°	482	518	620	767	839	302
155°	550	568	624	688	714	253
165°	601	608	627	651	659	169
175°	629	629	630	635	633	60
180°	631	631	631	631	631	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2670.0	2670.0	2670.0	2670.0	2670.0
2.5°	2683.6	2676.6	2655.6	2677.0	2667.6
5°	2683.0	2677.1	2654.0	2685.8	2676.0
7.5°	2678.0	2676.6	2658.8	2683.8	2672.6
10°	2678.0	2682.9	2654.0	2679.8	2671.0
12.5°	2679.6	2690.8	2649.2	2669.3	2656.6
15°	2675.0	2696.5	2636.0	2635.6	2620.0
17.5°	2645.0	2670.4	2594.2	2573.5	2552.6
20°	2609.0	2638.3	2551.0	2521.4	2498.9
22.5°	2557.0	2585.5	2496.5	2463.0	2440.5
25°	2459.9	2478.5	2386.9	2365.3	2339.9
27.5°	2322.3	2333.2	2262.1	2224.7	2201.8
30°	2215.8	2223.7	2162.8	2122.2	2093.8
32.5°	2092.6	2089.5	2045.2	2003.8	1977.0
35°	1877.7	1867.0	1844.7	1800.0	1770.7
37.5°	1613.4	1611.5	1589.4	1550.7	1520.0
40°	1424.5	1422.6	1400.5	1366.1	1345.5
42.5°	1195.7	1232.8	1206.9	1164.6	1151.8
45°	800.3	895.2	907.3	862.1	718.3
47.5°	413.0	539.7	631.8	492.2	340.9
50°	232.1	326.0	466.2	263.9	212.1
52.5°	151.3	196.6	325.3	168.5	142.5
55°	72.0	86.7	151.1	81.9	74.0
57.5°	25.8	39.9	66.0	40.5	25.0
60°	5.0	16.7	38.0	11.8	1.0
62.5°	1.8	4.9	22.0	3.2	1.0
65°	0.0	1.0	2.0	1.0	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	0.4	2.4	1.4	1.2
90°	0.0	1.9	11.9	6.9	5.9
92.5°	11.1	44.8	160.9	53.4	38.4
95°	32.7	103.4	497.3	183.7	115.9
97.5°	63.2	131.6	783.8	518.7	315.8
100°	82.2	149.1	875.8	846.7	568.7
102.5°	103.6	168.1	856.8	1187.5	946.7
105°	138.7	194.9	782.7	1486.4	1412.7
107.5°	172.0	225.6	711.3	1515.9	1601.2
110°	194.2	245.5	675.7	1478.7	1633.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	215.6	265.4	654.3	1416.2	1612.3
115°	246.7	294.1	633.1	1309.9	1538.6
117.5°	277.6	322.5	625.5	1210.4	1444.4
120°	298.2	340.8	623.1	1152.3	1377.1
122.5°	317.2	357.5	623.1	1101.2	1308.9
125°	344.8	382.5	624.1	1034.5	1217.6
127.5°	367.2	406.3	623.1	984.1	1140.3
130°	381.4	422.1	623.1	955.3	1096.7
132.5°	394.1	435.6	622.4	928.9	1059.5
135°	413.1	456.7	620.2	892.2	1003.6
137.5°	434.3	475.8	620.2	853.0	956.2
140°	447.8	488.5	620.2	827.5	925.3
142.5°	461.3	500.4	619.4	804.2	889.6
145°	482.5	518.3	620.2	767.4	839.1
147.5°	503.7	534.1	621.4	737.1	792.2
150°	517.1	545.2	622.2	720.3	766.8
152.5°	529.8	554.8	622.9	705.8	743.8
155°	549.8	568.2	624.1	688.1	714.3
157.5°	567.3	582.2	625.3	675.1	693.3
160°	577.6	590.2	626.1	667.0	680.6
162.5°	587.9	597.4	626.9	659.9	671.1
165°	601.4	608.1	627.1	651.1	658.8
167.5°	612.8	616.3	628.3	644.2	647.5
170°	619.2	621.1	629.1	641.0	642.0
172.5°	623.1	624.3	629.1	637.8	638.0
175°	629.1	629.1	630.1	635.0	633.1
177.5°	631.9	631.1	630.3	632.6	631.1
180°	631.1	631.1	631.1	631.1	631.1



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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	0.94	1.65	1.93	2.62	3.90	0.42	1.12	1.41	2.10	3.38
	3H	0.75	1.37	1.75	2.36	3.66	0.22	0.85	1.22	1.84	3.14
	4H	0.64	1.23	1.66	2.22	3.53	0.12	0.71	1.13	1.70	3.01
	6H	0.53	1.07	1.55	2.07	3.39	0.01	0.55	1.03	1.54	2.86
	8H	0.47	0.98	1.50	1.99	3.31	0.00	0.46	0.97	1.47	2.78
	12H	0.41	0.90	1.44	1.90	3.24	0.00	0.37	0.92	1.37	2.71
4H	2H	0.65	1.24	1.67	2.23	3.54	0.13	0.72	1.15	1.71	3.02
	3H	0.45	0.93	1.47	1.95	3.27	0.00	0.41	0.95	1.43	2.75
	4H	0.34	0.78	1.37	1.79	3.13	0.00	0.25	0.84	1.27	2.61
	6H	0.23	0.60	1.27	1.64	2.98	0.00	0.08	0.74	1.11	2.46
	8H	0.16	0.51	1.20	1.54	2.89	0.00	0.00	0.68	1.02	2.37
	12H	0.09	0.40	1.15	1.45	2.81	0.00	0.00	0.62	0.92	2.28
8H	4H	0.16	0.51	1.20	1.54	2.89	0.00	0.00	0.68	1.02	2.37
	6H	0.04	0.33	1.11	1.40	2.75	0.00	0.00	0.58	0.88	2.23
	8H	0.00	0.24	1.05	1.29	2.66	0.00	0.00	0.53	0.77	2.14
	12H	0.00	0.14	0.98	1.18	2.60	0.00	0.00	0.46	0.66	2.08
12H	4H	0.09	0.40	1.15	1.45	2.81	0.00	0.00	0.62	0.92	2.28
	6H	0.00	0.24	1.05	1.29	2.66	0.00	0.00	0.53	0.77	2.14
	8H	0.00	0.14	0.98	1.18	2.60	0.00	0.00	0.46	0.66	2.08