

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: P853507

Luminaire Tested: SQ2-BBM-050U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853507
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-050U-100D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

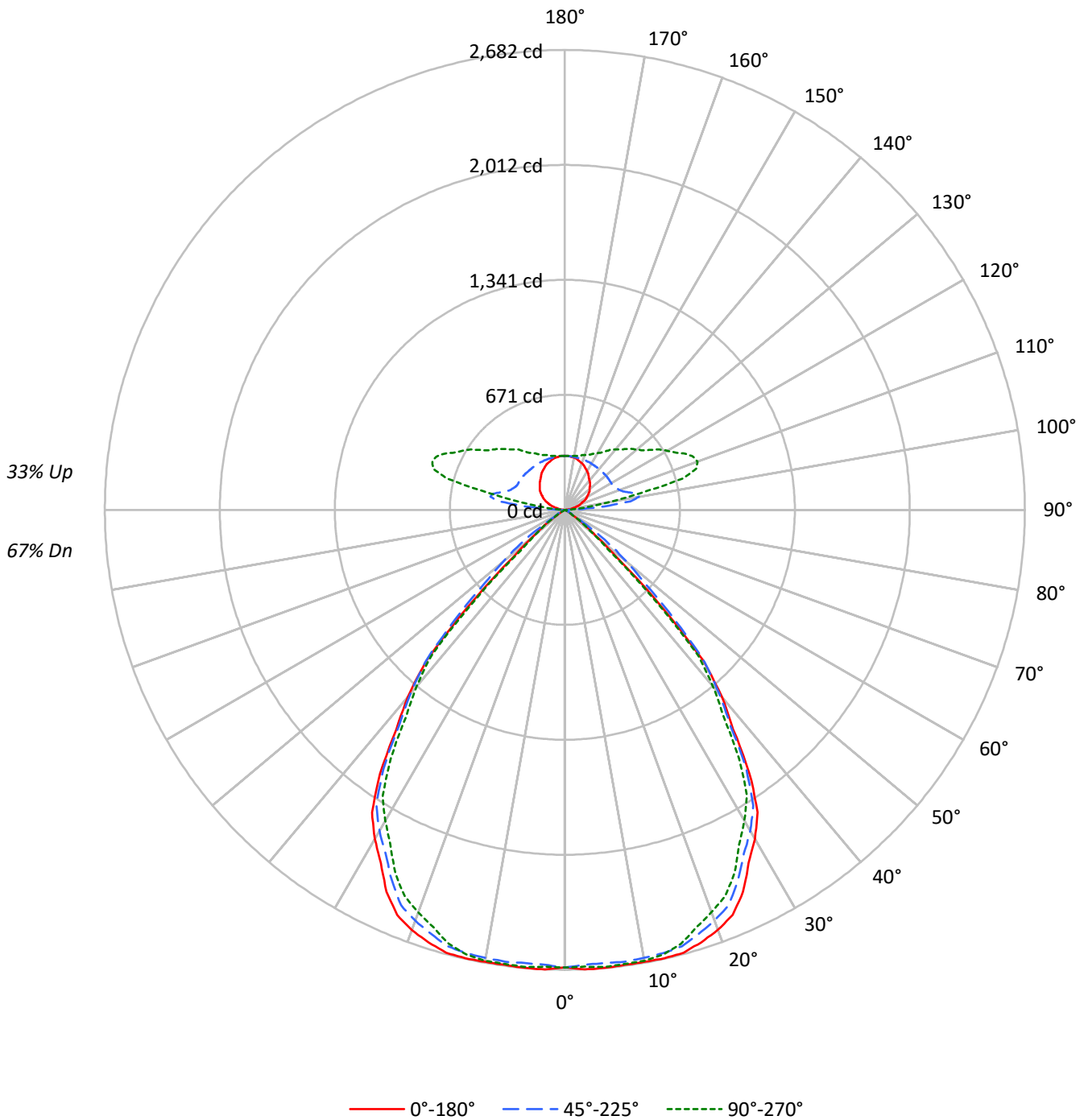
Lumens per Lamp: N/A
Luminaire Lumens: 5949.9 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 52.9
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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67				
1	104	101	98	95	98	95	93	91	85	83	82	76	75	74	68	67	66	62				
2	97	91	87	82	92	87	83	79	78	75	72	70	68	66	63	61	60	56				
3	91	83	77	72	86	79	74	70	72	68	64	65	62	59	59	56	54	51				
4	85	76	69	64	80	72	66	62	66	61	58	60	56	53	54	52	49	47				
5	79	69	62	57	75	66	60	55	60	56	52	55	51	48	50	47	45	43				
6	74	63	56	51	70	61	54	50	56	51	47	51	47	44	47	44	41	39				
7	69	58	51	46	65	56	49	45	51	46	43	47	43	40	44	40	38	36				
8	65	54	47	42	61	52	45	41	48	42	39	44	40	37	41	37	35	33				
9	61	50	43	38	58	48	42	37	44	39	36	41	37	34	38	34	32	30				
10	57	46	39	35	54	44	38	34	41	36	33	38	34	31	36	32	30	28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	43092	43092	43092
5°	43467	42997	43353
10°	43888	43494	43773
15°	44695	44043	43776
20°	44809	43812	42919
25°	43805	42505	41667
30°	41294	40306	39019
35°	36995	36344	34885
40°	30011	29506	28346
45°	18267	20710	16395
50°	5827	11705	5325
55°	2027	4251	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: 20710 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.1	4.3
10°-20°	745.9	12.5
20°-30°	1099.4	18.5
30°-40°	1125.8	18.9
40°-50°	648.7	10.9
50°-60°	113.6	1.9
60°-70°	4.4	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	125.5	2.1
100°-110°	398.1	6.7
110°-120°	390.3	6.6
120°-130°	317.6	5.3
130°-140°	259.0	4.4
140°-150°	201.9	3.4
150°-160°	145.5	2.4
160°-170°	88.9	1.5
170°-180°	30.0	0.5
0°-30°	2100.3	35.3
0°-40°	3226.1	54.2
0°-60°	3988.5	67.0
0°-90°	3993.3	67.1
90°-120°	913.9	15.4
90°-150°	1692.4	28.4
90°-180°	1957.0	32.9
0°-180°	5949.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2669	2669	2669	2669	2669	
5°	2682	2676	2653	2685	2675	256
15°	2674	2695	2635	2634	2619	753
25°	2459	2478	2386	2364	2339	1122
35°	1877	1866	1844	1799	1770	1152
45°	800	895	907	862	718	612
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	1	3	3	3	1
95°	17	51	228	84	54	19
105°	69	98	392	747	716	73
115°	124	147	317	659	775	122
125°	171	192	312	516	608	153
135°	207	227	310	444	500	160
145°	242	260	310	383	417	151
155°	276	285	311	342	356	127
165°	300	303	312	324	327	85
175°	314	313	314	316	315	30
180°	315	315	315	315	315	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2668.9	2668.9	2668.9	2668.9	2668.9
2.5°	2682.5	2675.4	2654.5	2675.9	2666.5
5°	2681.9	2676.0	2652.9	2684.6	2674.9
7.5°	2676.9	2675.5	2657.7	2682.6	2671.5
10°	2676.9	2681.8	2652.9	2678.7	2669.9
12.5°	2678.5	2689.6	2648.1	2668.2	2655.5
15°	2673.9	2695.4	2634.9	2634.5	2618.9
17.5°	2643.9	2669.3	2593.1	2572.4	2551.5
20°	2607.9	2637.2	2549.9	2520.4	2497.9
22.5°	2555.9	2584.4	2495.5	2462.0	2439.5
25°	2458.9	2477.5	2385.9	2364.3	2338.9
27.5°	2321.3	2332.2	2261.1	2223.8	2200.9
30°	2214.9	2222.7	2161.9	2121.2	2092.9
32.5°	2091.7	2088.6	2044.3	2002.9	1976.1
35°	1876.9	1866.1	1843.9	1799.2	1769.9
37.5°	1612.7	1610.8	1588.7	1550.0	1519.3
40°	1423.9	1422.0	1399.9	1365.5	1344.9
42.5°	1195.1	1232.3	1206.3	1164.1	1151.3
45°	800.0	894.8	907.0	861.7	718.0
47.5°	412.8	539.5	631.6	491.9	340.8
50°	232.0	325.9	466.0	263.8	212.0
52.5°	151.2	196.6	325.2	168.4	142.4
55°	72.0	86.7	151.0	81.8	74.0
57.5°	25.8	39.9	66.0	40.4	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	0.2	0.6	0.6	0.6
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.5	22.0	70.4	23.4	16.4
95°	16.8	50.8	227.9	84.5	54.5
97.5°	31.3	65.8	386.0	241.2	148.0
100°	41.6	74.6	439.9	401.1	260.6
102.5°	52.7	84.1	430.4	589.0	450.8
105°	69.4	97.5	392.4	747.4	716.4
107.5°	86.0	112.0	356.1	763.9	805.8
110°	97.1	122.3	337.9	744.9	822.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	108.2	131.8	327.6	712.1	810.5
115°	123.9	147.1	317.1	658.6	774.9
117.5°	139.1	161.2	312.9	607.1	724.3
120°	148.6	169.9	312.1	575.3	688.7
122.5°	158.1	178.7	312.1	549.8	655.4
125°	171.4	191.8	312.1	516.4	608.4
127.5°	183.1	202.7	312.1	490.5	569.0
130°	190.2	210.6	312.1	475.2	546.0
132.5°	197.4	217.7	311.3	463.2	526.9
135°	207.1	227.4	310.1	444.2	500.4
137.5°	216.6	237.9	309.9	426.0	476.2
140°	222.9	244.3	309.2	413.2	458.8
142.5°	230.9	251.4	309.9	400.5	442.9
145°	241.8	260.2	310.1	383.2	417.2
147.5°	252.7	268.4	310.3	368.0	395.8
150°	260.6	273.2	311.1	359.2	381.5
152.5°	266.9	278.0	311.1	352.0	370.4
155°	275.5	285.2	311.1	342.2	355.7
157.5°	284.6	291.2	312.1	336.1	345.4
160°	289.3	295.1	312.1	332.1	339.9
162.5°	294.1	298.4	312.1	328.9	334.3
165°	300.2	303.1	312.1	324.1	327.0
167.5°	306.0	306.8	313.1	320.7	323.2
170°	309.2	309.2	313.1	319.1	320.1
172.5°	310.7	311.5	313.1	317.5	317.7
175°	314.1	313.1	314.1	316.1	315.1
177.5°	315.1	314.3	314.3	315.9	314.3
180°	315.1	315.1	315.1	315.1	315.1

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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	2.45	3.25	3.29	4.08	5.09	1.92	2.72	2.76	3.55	4.56
	3H	2.26	2.97	3.11	3.80	4.85	1.73	2.44	2.58	3.28	4.32
	4H	2.16	2.82	3.02	3.66	4.72	1.63	2.29	2.49	3.13	4.20
	6H	2.05	2.66	2.93	3.51	4.58	1.52	2.13	2.40	2.98	4.05
	8H	1.99	2.57	2.88	3.43	4.50	1.46	2.04	2.35	2.90	3.97
	12H	1.94	2.48	2.82	3.34	4.43	1.41	1.95	2.29	2.81	3.90
4H	2H	2.17	2.83	3.04	3.67	4.73	1.64	2.30	2.51	3.15	4.21
	3H	1.97	2.51	2.85	3.39	4.46	1.45	1.99	2.32	2.86	3.94
	4H	1.86	2.35	2.75	3.22	4.33	1.33	1.82	2.22	2.70	3.80
	6H	1.75	2.17	2.66	3.07	4.17	1.23	1.64	2.13	2.54	3.65
	8H	1.69	2.08	2.59	2.97	4.08	1.16	1.55	2.06	2.44	3.56
	12H	1.62	1.96	2.54	2.88	4.00	1.09	1.44	2.01	2.35	3.47
8H	4H	1.69	2.08	2.59	2.97	4.08	1.16	1.55	2.06	2.44	3.56
	6H	1.57	1.89	2.50	2.82	3.94	1.04	1.36	1.97	2.29	3.41
	8H	1.51	1.79	2.44	2.72	3.85	0.98	1.26	1.92	2.19	3.32
	12H	1.44	1.69	2.38	2.60	3.79	0.91	1.16	1.85	2.08	3.26
12H	4H	1.62	1.96	2.54	2.88	4.00	1.09	1.44	2.01	2.35	3.47
	6H	1.51	1.79	2.44	2.72	3.85	0.98	1.26	1.92	2.19	3.32
	8H	1.44	1.69	2.38	2.60	3.79	0.91	1.16	1.85	2.08	3.26