

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: P853496

Luminaire Tested: SQ2-BBM-025U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853496
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2104-222-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-025U-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

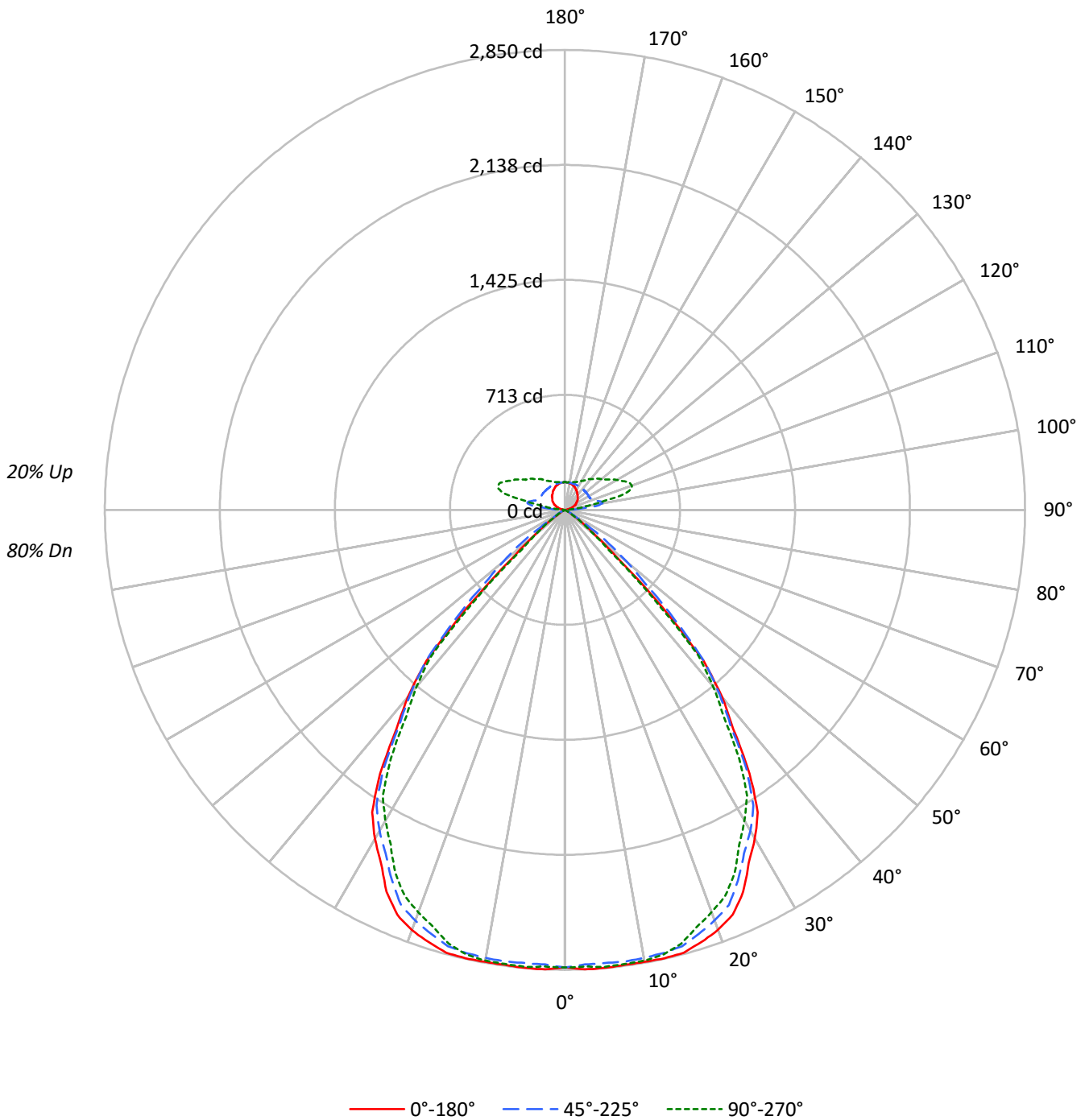
Lumens per Lamp: N/A
Luminaire Lumens: 5303.8 lumens
Efficiency: N/A
Efficacy: 116.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45.6
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	0
RCR																		
0	114	114	114	114	109	109	109	109	100	100	100	91	91	91	84	84	84	80
1	108	104	101	99	103	100	98	95	92	91	89	85	84	83	79	78	77	74
2	101	95	90	86	97	92	87	84	85	82	79	79	77	74	74	72	70	67
3	94	87	81	76	91	84	79	74	78	74	71	73	70	67	68	66	64	61
4	88	79	73	68	85	77	71	67	72	67	64	68	64	61	64	60	58	56
5	82	73	66	61	79	71	64	60	66	61	57	63	58	55	59	56	53	51
6	77	67	60	55	74	65	59	54	61	56	52	58	54	50	55	51	48	46
7	72	62	55	50	70	60	54	49	57	51	47	54	49	46	51	47	44	42
8	68	57	50	46	66	56	49	45	53	47	43	50	46	42	48	44	41	39
9	64	53	46	42	62	52	45	41	49	44	40	47	42	39	45	41	38	36
10	60	49	43	38	58	48	42	38	46	40	37	44	39	36	42	38	35	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	45786	45786	45786
5°	46185	45686	46065
10°	46632	46214	46509
15°	47490	46798	46514
20°	47611	46551	45603
25°	46545	45163	44274
30°	43876	42826	41460
35°	39309	38617	37067
40°	31889	31352	30119
45°	19409	22005	17420
50°	6192	12436	5657
55°	2153	4515	2213
60°	171	1305	36
65°	0	80	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: 22005 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.0	5.1
10°-20°	792.5	14.9
20°-30°	1168.1	22.0
30°-40°	1196.2	22.6
40°-50°	689.3	13.0
50°-60°	120.7	2.3
60°-70°	4.6	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	69.2	1.3
100°-110°	215.2	4.1
110°-120°	210.5	4.0
120°-130°	171.8	3.2
130°-140°	140.6	2.7
140°-150°	109.7	2.1
150°-160°	79.2	1.5
160°-170°	48.4	0.9
170°-180°	16.3	0.3
0°-30°	2231.6	42.1
0°-40°	3427.8	64.6
0°-60°	4237.9	79.9
0°-90°	4243.0	80.0
90°-120°	494.8	9.3
90°-150°	917.0	17.3
90°-180°	1061.0	20.0
0°-180°	5303.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2836	2836	2836	2836	2836	
5°	2850	2843	2819	2852	2842	272
15°	2841	2864	2800	2799	2783	800
25°	2613	2632	2535	2512	2485	1192
35°	1994	1983	1959	1912	1881	1224
45°	850	951	964	916	763	651
55°	76	92	160	87	79	85
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	0
95°	9	28	127	47	30	11
105°	38	53	212	404	386	40
115°	67	79	172	355	415	66
125°	93	104	170	279	327	83
135°	112	124	169	241	271	87
145°	131	141	169	208	226	82
155°	150	155	170	187	193	69
165°	165	166	171	176	178	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2835.8	2835.8	2835.8	2835.8	2835.8
2.5°	2850.2	2842.8	2820.5	2843.2	2833.2
5°	2849.6	2843.4	2818.8	2852.5	2842.2
7.5°	2844.3	2842.8	2823.9	2850.4	2838.5
10°	2844.3	2849.5	2818.8	2846.2	2836.8
12.5°	2846.0	2857.8	2813.7	2835.1	2821.5
15°	2841.1	2864.0	2799.7	2799.3	2782.7
17.5°	2809.2	2836.2	2755.2	2733.3	2711.0
20°	2771.0	2802.1	2709.3	2678.0	2654.1
22.5°	2715.7	2746.1	2651.5	2615.9	2592.0
25°	2612.7	2632.4	2535.1	2512.2	2485.2
27.5°	2466.5	2478.1	2402.5	2362.8	2338.5
30°	2353.4	2361.7	2297.1	2253.9	2223.8
32.5°	2222.5	2219.2	2172.2	2128.2	2099.7
35°	1994.3	1982.9	1959.2	1911.8	1880.6
37.5°	1713.6	1711.5	1688.1	1647.0	1614.3
40°	1513.0	1510.9	1487.5	1450.9	1429.0
42.5°	1269.9	1309.4	1281.8	1236.9	1223.3
45°	850.0	950.8	963.7	915.6	762.9
47.5°	438.6	573.2	671.1	522.7	362.1
50°	246.5	346.2	495.1	280.3	225.2
52.5°	160.6	208.9	345.5	178.9	151.3
55°	76.5	92.1	160.4	86.9	78.6
57.5°	27.4	42.4	70.1	43.0	26.6
60°	5.3	17.8	40.4	12.5	1.1
62.5°	1.9	5.2	23.4	3.3	1.1
65°	0.0	1.0	2.1	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	3.1	3.1	3.1
92.5°	3.4	11.8	40.1	13.2	10.7
95°	9.4	27.9	126.9	46.8	30.4
97.5°	17.2	36.3	210.2	130.8	82.4
100°	23.1	40.5	237.0	221.7	147.9
102.5°	28.9	45.6	232.0	316.6	248.5
105°	37.8	53.1	211.8	404.4	385.9
107.5°	46.6	60.9	192.5	411.1	431.4
110°	52.4	66.8	182.5	401.5	441.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.3	71.8	177.4	384.1	434.8
115°	67.1	79.4	172.0	354.8	415.3
117.5°	75.7	87.0	169.7	326.7	388.7
120°	80.8	92.0	168.8	310.7	370.2
122.5°	85.8	97.1	169.7	297.2	351.7
125°	93.3	103.6	169.9	279.0	327.2
127.5°	99.4	109.9	169.9	265.4	306.4
130°	102.8	114.1	169.9	257.8	294.7
132.5°	107.0	118.2	169.1	251.0	285.5
135°	112.2	124.5	168.8	240.8	270.6
137.5°	118.3	129.6	168.8	230.7	257.8
140°	121.7	132.9	168.8	223.9	248.5
142.5°	125.8	136.3	168.8	217.2	239.3
145°	131.1	141.3	168.8	208.1	226.5
147.5°	137.4	146.2	169.9	199.6	214.1
150°	141.6	148.8	169.9	195.3	206.6
152.5°	144.9	151.3	169.9	191.1	200.7
155°	150.0	155.1	169.9	186.8	193.0
157.5°	155.0	158.9	169.9	183.0	186.9
160°	158.4	161.4	169.9	180.5	183.5
162.5°	160.9	163.1	169.9	178.8	181.0
165°	164.7	165.7	170.9	176.2	178.3
167.5°	167.0	167.2	169.9	174.7	175.8
170°	167.8	168.8	169.9	173.1	174.1
172.5°	169.5	169.7	170.7	172.2	172.4
175°	170.9	170.9	170.9	172.0	170.9
177.5°	170.9	170.9	170.9	170.9	170.9
180°	170.9	170.9	170.9	170.9	170.9



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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	3.73	4.63	4.41	5.30	6.08	3.19	4.09	3.88	4.76	5.54
	3H	3.55	4.34	4.24	5.02	5.84	3.01	3.80	3.71	4.49	5.30
	4H	3.45	4.18	4.17	4.88	5.71	2.91	3.65	3.63	4.34	5.18
	6H	3.34	4.02	4.07	4.72	5.56	2.81	3.48	3.54	4.19	5.03
	8H	3.29	3.92	4.03	4.65	5.49	2.75	3.39	3.49	4.11	4.96
	12H	3.23	3.84	3.97	4.55	5.42	2.70	3.30	3.44	4.02	4.88
4H	2H	3.46	4.19	4.18	4.89	5.72	2.92	3.66	3.65	4.36	5.19
	3H	3.27	3.87	4.00	4.60	5.44	2.74	3.33	3.47	4.07	4.91
	4H	3.16	3.69	3.90	4.43	5.31	2.62	3.16	3.37	3.90	4.78
	6H	3.05	3.51	3.82	4.27	5.16	2.52	2.98	3.28	3.74	4.63
	8H	2.98	3.41	3.75	4.17	5.06	2.45	2.88	3.22	3.64	4.53
	12H	2.92	3.30	3.70	4.08	4.98	2.39	2.76	3.17	3.55	4.44
8H	4H	2.98	3.41	3.75	4.17	5.06	2.45	2.88	3.22	3.64	4.53
	6H	2.86	3.21	3.66	4.01	4.91	2.33	2.68	3.13	3.48	4.38
	8H	2.80	3.11	3.61	3.91	4.82	2.27	2.58	3.08	3.38	4.29
	12H	2.73	3.01	3.54	3.80	4.77	2.20	2.48	3.01	3.26	4.24
12H	4H	2.92	3.30	3.70	4.08	4.98	2.39	2.76	3.17	3.55	4.44
	6H	2.80	3.11	3.61	3.91	4.82	2.27	2.58	3.08	3.38	4.29
	8H	2.73	3.01	3.54	3.80	4.77	2.20	2.48	3.01	3.26	4.24

END OF REPORT