

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: P853510

Luminaire Tested: SQ2-BBM-050U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853510
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-050U-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

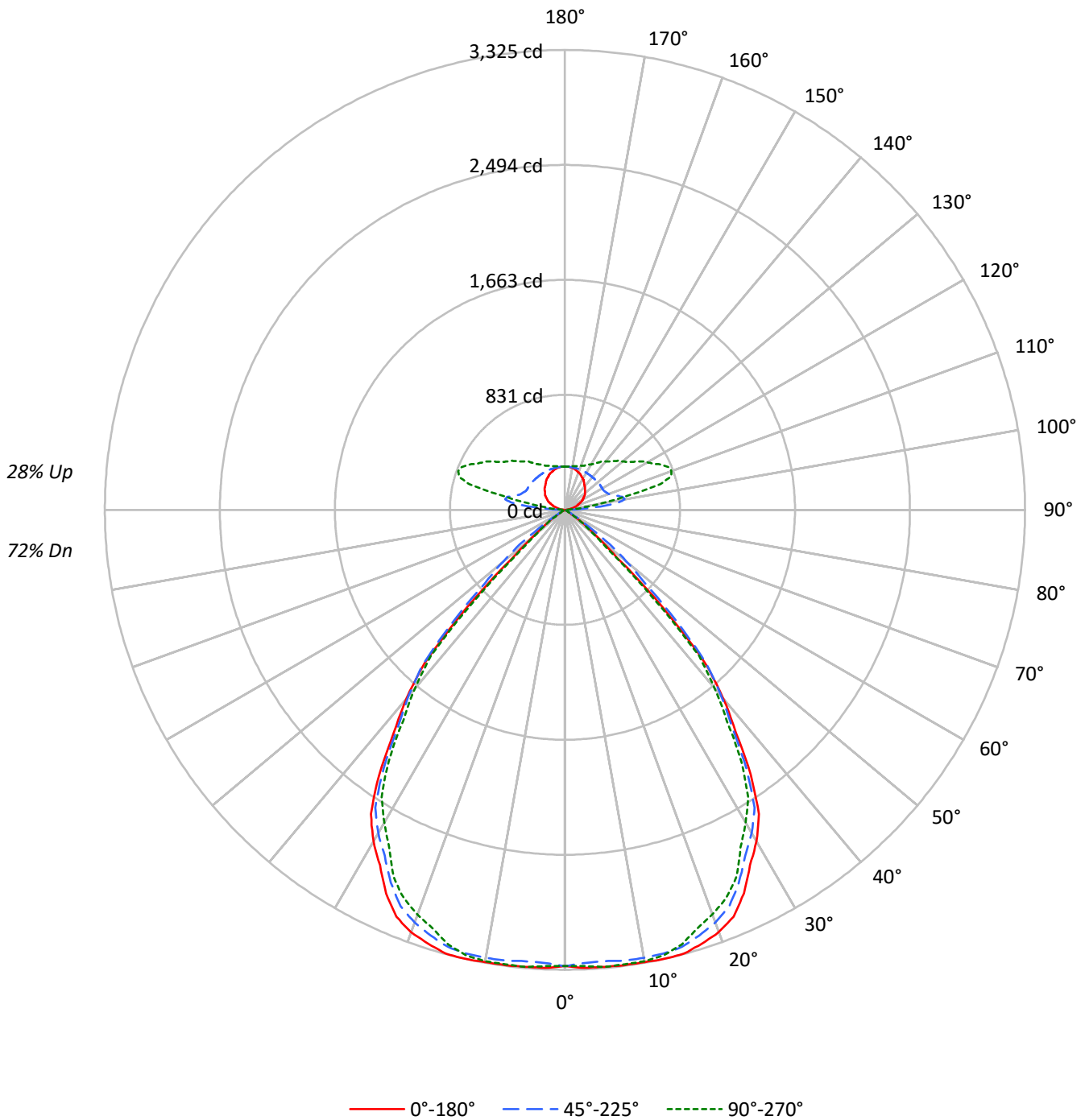
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6931.3 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64.6
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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	76	76	76	72	
1	105	102	99	96	100	97	95	92	88	86	84	80	78	77	72	71	70	70	70	70	66	
2	99	93	88	84	94	89	84	81	81	78	75	74	71	69	67	65	64	64	64	64	60	
3	92	84	78	74	87	81	76	71	74	70	67	68	65	62	62	60	58	58	58	58	55	
4	86	77	70	65	82	74	68	64	68	63	60	63	59	56	58	55	53	53	53	53	50	
5	80	70	64	58	76	68	62	57	63	58	54	58	54	51	54	50	48	48	48	48	45	
6	75	65	58	53	71	62	56	51	58	53	49	54	49	46	50	46	44	44	44	44	42	
7	70	59	52	48	67	57	51	46	53	48	44	50	45	42	46	43	40	40	40	40	38	
8	66	55	48	43	63	53	47	42	50	44	40	46	42	39	43	40	37	37	37	37	35	
9	62	51	44	39	59	49	43	39	46	41	37	43	39	36	40	37	34	34	34	34	32	
10	58	47	41	36	56	46	40	36	43	38	34	40	36	33	38	34	31	31	31	31	30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	53272	53272	53272
5°	53749	53086	53749
10°	54436	53913	54321
15°	55534	54684	54384
20°	55850	54550	53505
25°	54498	52989	52191
30°	51607	50306	48671
35°	46152	45070	43812
40°	37586	37038	35527
45°	22943	25992	20667
50°	7485	14546	6586
55°	2553	5134	2638
60°	194	1482	65
65°	38	76	0
70°	0	47	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 26035 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	315.7	4.6
10°-20°	927.1	13.4
20°-30°	1370.2	19.8
30°-40°	1408.2	20.3
40°-50°	813.4	11.7
50°-60°	140.9	2.0
60°-70°	5.3	0.1
70°-80°	0.1	0.0
80°-90°	0.5	0.0
90°-100°	125.1	1.8
100°-110°	396.7	5.7
110°-120°	389.0	5.6
120°-130°	316.5	4.6
130°-140°	258.1	3.7
140°-150°	201.2	2.9
150°-160°	145.0	2.1
160°-170°	88.6	1.3
170°-180°	29.9	0.4
0°-30°	2613.1	37.7
0°-40°	4021.3	58.0
0°-60°	4975.6	71.8
0°-90°	4981.5	71.9
90°-120°	910.7	13.1
90°-150°	1686.5	24.3
90°-180°	1950.0	28.1
0°-180°	6931.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3299	3299	3299	3299	3299	
5°	3316	3307	3275	3323	3316	317
15°	3322	3347	3272	3277	3254	936
25°	3059	3086	2974	2940	2930	1399
35°	2342	2342	2287	2251	2223	1441
45°	1005	1140	1138	1078	905	768
55°	91	105	182	103	94	102
65°	1	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	227	84	54	19
105°	69	97	391	745	714	73
115°	123	147	316	656	772	122
125°	171	191	311	515	606	152
135°	206	227	309	443	499	159
145°	241	259	309	382	416	151
155°	274	284	310	341	354	127
165°	299	302	311	323	326	84
175°	313	312	313	315	314	30
180°	314	314	314	314	314	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3299.4	3299.4	3299.4	3299.4	3299.4
2.5°	3314.5	3305.2	3278.6	3308.8	3301.8
5°	3316.3	3306.6	3275.4	3323.1	3316.3
7.5°	3319.5	3313.5	3286.8	3324.2	3313.3
10°	3320.3	3321.3	3288.4	3321.1	3313.3
12.5°	3325.1	3334.6	3285.2	3311.4	3298.2
15°	3322.3	3346.7	3271.5	3276.9	3253.5
17.5°	3288.8	3323.9	3227.4	3203.8	3174.6
20°	3250.5	3285.6	3174.8	3143.2	3114.0
22.5°	3182.7	3220.9	3102.2	3067.5	3040.6
25°	3059.1	3086.4	2974.4	2940.3	2929.6
27.5°	2896.5	2906.2	2819.5	2774.5	2749.3
30°	2768.1	2766.1	2698.3	2646.6	2610.6
32.5°	2609.4	2619.1	2550.8	2502.3	2465.5
35°	2341.5	2342.4	2286.6	2251.1	2222.8
37.5°	2028.9	2024.0	1985.4	1937.6	1921.6
40°	1783.3	1790.1	1757.3	1703.1	1685.6
42.5°	1498.6	1543.6	1520.5	1456.6	1435.2
45°	1004.8	1140.2	1138.3	1077.6	905.1
47.5°	514.1	683.7	785.7	615.4	412.9
50°	298.0	405.2	579.1	319.7	262.2
52.5°	188.8	239.9	411.7	207.8	174.4
55°	90.7	105.3	182.4	103.4	93.7
57.5°	33.1	49.3	80.9	50.3	35.5
60°	6.0	20.6	45.9	13.7	2.0
62.5°	2.0	5.7	26.7	3.5	1.2
65°	1.0	1.0	2.0	1.0	0.0
67.5°	0.0	1.0	1.0	0.0	0.0
70°	0.0	1.0	1.0	0.0	0.0
72.5°	0.0	0.2	0.2	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	21.9	70.1	23.3	16.4
95°	16.8	50.6	227.1	84.2	54.3
97.5°	31.2	65.6	384.7	240.4	147.5
100°	41.5	74.3	438.4	399.7	259.7
102.5°	52.5	83.8	428.9	587.0	449.3
105°	69.1	97.1	391.0	744.8	713.9
107.5°	85.7	111.6	354.9	761.3	803.0
110°	96.8	121.9	336.7	742.3	819.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	107.8	131.4	326.4	709.6	807.7
115°	123.4	146.6	316.0	656.3	772.2
117.5°	138.6	160.6	311.8	605.0	721.8
120°	148.1	169.4	311.0	573.3	686.3
122.5°	157.6	178.1	311.0	547.8	653.1
125°	170.8	191.1	311.0	514.6	606.3
127.5°	182.5	202.0	311.0	488.8	567.0
130°	189.6	209.9	311.0	473.6	544.1
132.5°	196.7	217.0	310.3	461.6	525.1
135°	206.4	226.6	309.1	442.7	498.7
137.5°	215.9	237.1	308.9	424.5	474.6
140°	222.2	243.4	308.1	411.8	457.2
142.5°	230.1	250.5	308.9	399.1	441.4
145°	240.9	259.3	309.1	381.9	415.7
147.5°	251.8	267.4	309.3	366.8	394.4
150°	259.7	272.2	310.1	358.0	380.2
152.5°	266.0	277.0	310.1	350.8	369.1
155°	274.5	284.2	310.1	341.0	354.5
157.5°	283.6	290.2	311.0	335.0	344.2
160°	288.3	294.1	311.0	331.0	338.7
162.5°	293.1	297.3	311.0	327.8	333.2
165°	299.2	302.1	311.0	323.0	325.9
167.5°	304.9	305.7	312.0	319.6	322.1
170°	308.1	308.1	312.0	318.0	318.9
172.5°	309.7	310.4	312.0	316.4	316.6
175°	313.0	312.1	313.0	315.0	314.0
177.5°	314.0	313.2	313.2	314.8	313.2
180°	314.0	314.0	314.0	314.0	314.0



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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	3.48	4.32	4.27	5.09	6.02	3.09	3.93	3.88	4.70	5.63
	3H	3.30	4.03	4.09	4.82	5.78	2.91	3.64	3.70	4.43	5.39
	4H	3.20	3.88	4.01	4.68	5.66	2.81	3.49	3.62	4.29	5.27
	6H	3.09	3.72	3.91	4.52	5.51	2.70	3.33	3.52	4.13	5.12
	8H	3.03	3.63	3.87	4.45	5.44	2.64	3.24	3.48	4.05	5.05
	12H	2.97	3.54	3.81	4.35	5.36	2.58	3.15	3.42	3.96	4.97
4H	2H	3.20	3.89	4.02	4.68	5.66	2.81	3.50	3.63	4.29	5.27
	3H	3.01	3.57	3.84	4.40	5.39	2.62	3.18	3.45	4.01	5.00
	4H	2.90	3.40	3.74	4.23	5.26	2.51	3.01	3.35	3.84	4.87
	6H	2.79	3.22	3.65	4.07	5.11	2.40	2.83	3.26	3.68	4.72
	8H	2.73	3.13	3.58	3.97	5.01	2.34	2.74	3.19	3.58	4.62
	12H	2.66	3.02	3.53	3.88	4.92	2.27	2.63	3.14	3.49	4.53
8H	4H	2.73	3.13	3.58	3.97	5.01	2.34	2.74	3.19	3.58	4.62
	6H	2.61	2.94	3.49	3.83	4.86	2.22	2.55	3.10	3.44	4.47
	8H	2.54	2.83	3.44	3.72	4.78	2.15	2.44	3.05	3.33	4.39
	12H	2.48	2.73	3.37	3.61	4.72	2.09	2.34	2.98	3.22	4.33
12H	4H	2.66	3.02	3.53	3.88	4.92	2.27	2.63	3.14	3.49	4.53
	6H	2.54	2.83	3.44	3.72	4.78	2.15	2.44	3.05	3.33	4.39
	8H	2.48	2.73	3.37	3.61	4.72	2.09	2.34	2.98	3.22	4.33