

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: P854350

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854350
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-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

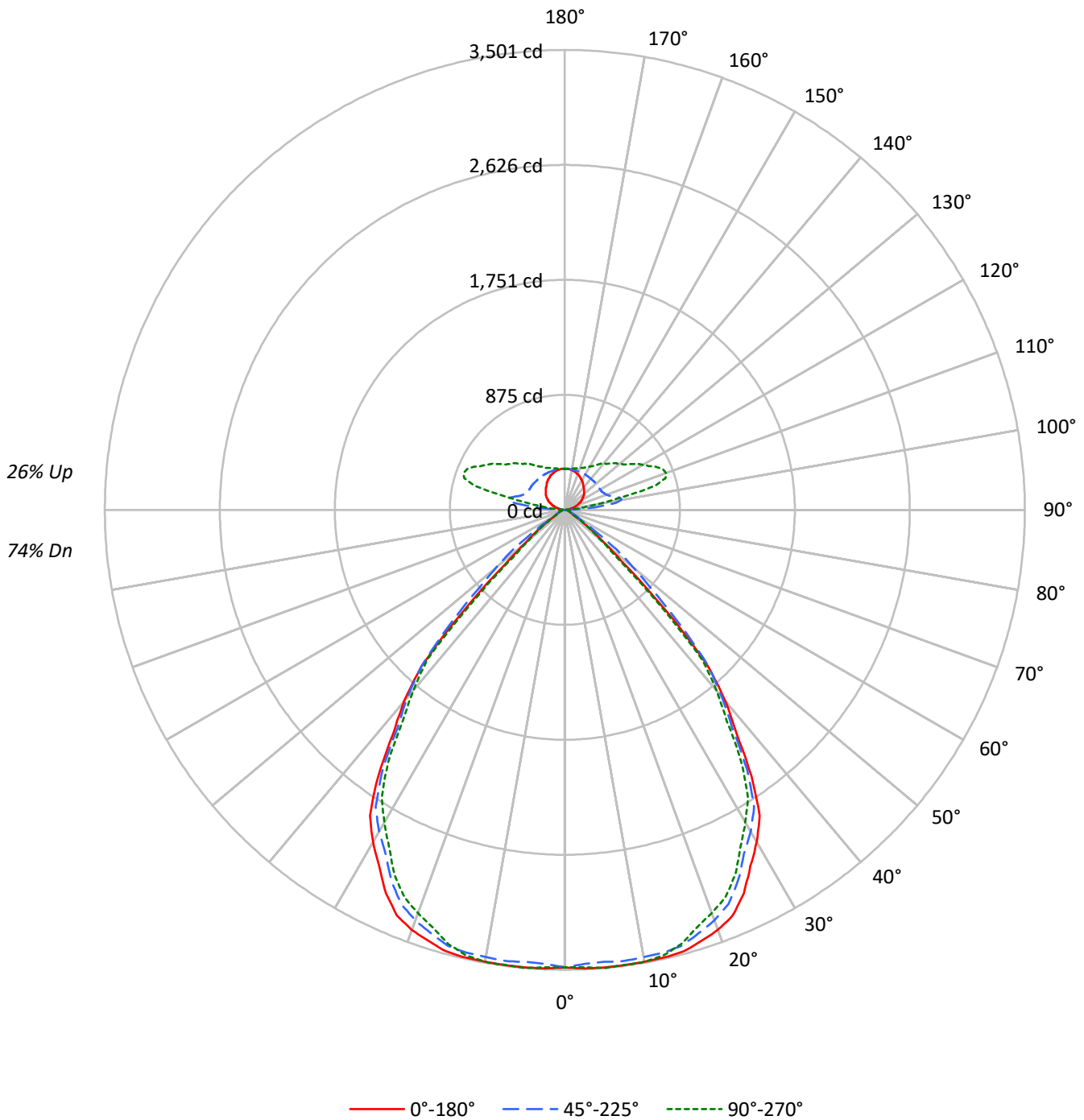
Lumens per Lamp: N/A
Luminaire Lumens: 7389.5 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64.5
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	113	113	113	113	107	107	107	107	96	96	96	87	87	87	78	78	78	74	74	74	74	
1	106	102	99	96	100	97	95	92	89	87	85	80	79	78	73	72	71	67	67	67	67	
2	99	93	88	83	94	89	84	81	81	78	75	74	72	69	68	66	64	61	61	61	61	
3	92	84	78	73	88	81	75	71	74	70	66	68	65	62	63	60	58	55	55	55	55	
4	86	77	70	65	82	74	68	63	68	63	59	63	59	56	58	55	53	50	50	50	50	
5	80	70	63	58	76	67	61	56	62	57	53	58	54	51	54	50	48	45	45	45	45	
6	75	64	57	52	71	62	55	51	58	52	48	54	49	46	50	46	44	41	41	41	41	
7	70	59	52	47	67	57	50	46	53	48	44	50	45	42	46	43	40	38	38	38	38	
8	65	54	47	43	63	53	46	42	49	44	40	46	42	38	43	39	37	35	35	35	35	
9	61	50	43	39	59	49	42	38	46	40	37	43	38	35	40	36	34	32	32	32	32	
10	58	47	40	36	55	45	39	35	43	37	34	40	36	32	38	34	31	29	29	29	29	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	56225	56225	56225
5°	56666	55987	56747
10°	57272	56667	57289
15°	58191	57424	57190
20°	58477	57156	56127
25°	57377	55561	54619
30°	54441	52709	51220
35°	48817	47656	46180
40°	40078	39192	37761
45°	25060	28458	22735
50°	9909	16832	8854
55°	4808	7645	4752
60°	2257	3739	2063
65°	2021	2174	1945
70°	1978	2025	1836
75°	1934	1934	1747
80°	1860	1860	1674
85°	1667	1667	1667

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 28458 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	332.7	4.5
10°-20°	972.5	13.2
20°-30°	1437.8	19.5
30°-40°	1485.7	20.1
40°-50°	893.9	12.1
50°-60°	214.8	2.9
60°-70°	58.7	0.8
70°-80°	32.7	0.4
80°-90°	10.7	0.1
90°-100°	125.1	1.7
100°-110°	396.7	5.4
110°-120°	389.0	5.3
120°-130°	316.5	4.3
130°-140°	258.1	3.5
140°-150°	201.2	2.7
150°-160°	145.0	2.0
160°-170°	88.6	1.2
170°-180°	29.9	0.4
0°-30°	2743.0	37.1
0°-40°	4228.7	57.2
0°-60°	5337.5	72.2
0°-90°	5439.5	73.6
90°-120°	910.7	12.3
90°-150°	1686.5	22.8
90°-180°	1950.0	26.4
0°-180°	7389.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3482	3482	3482	3482	3482	
5°	3496	3486	3454	3503	3501	334
15°	3481	3508	3435	3436	3421	981
25°	3221	3245	3119	3075	3066	1472
35°	2477	2471	2418	2371	2343	1524
45°	1098	1246	1246	1178	996	850
55°	171	192	272	183	169	174
65°	53	56	57	53	51	54
75°	31	33	31	30	28	32
85°	9	10	9	9	9	10
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°	3482.3	3482.3	3482.3	3482.3	3482.3
2.5°	3495.1	3486.5	3459.2	3491.0	3485.5
5°	3496.3	3485.6	3454.4	3503.3	3501.3
7.5°	3495.7	3490.1	3463.6	3501.1	3493.5
10°	3493.3	3496.2	3456.4	3497.2	3494.3
12.5°	3491.7	3504.8	3452.4	3481.2	3473.5
15°	3481.3	3507.7	3435.4	3436.1	3421.4
17.5°	3443.4	3475.4	3381.7	3353.9	3335.3
20°	3403.4	3434.7	3326.5	3285.2	3266.6
22.5°	3341.1	3370.0	3249.8	3207.7	3192.3
25°	3220.7	3245.1	3118.8	3074.7	3065.9
27.5°	3058.3	3068.7	2952.6	2909.4	2894.3
30°	2920.1	2921.1	2827.2	2775.6	2747.3
32.5°	2759.5	2752.7	2680.2	2628.5	2593.1
35°	2476.7	2470.8	2417.8	2371.2	2342.9
37.5°	2144.3	2143.3	2092.8	2052.6	2024.1
40°	1901.5	1908.3	1859.5	1809.2	1791.6
42.5°	1610.6	1661.2	1619.8	1564.8	1553.5
45°	1097.5	1246.0	1246.3	1178.3	995.7
47.5°	627.8	787.9	897.0	694.4	515.5
50°	394.5	515.6	670.1	422.8	352.5
52.5°	280.2	339.6	495.9	297.4	263.0
55°	170.8	192.3	271.6	183.4	168.8
57.5°	103.5	123.6	157.4	123.0	103.9
60°	69.9	88.5	115.8	81.5	63.9
62.5°	61.9	68.8	91.1	64.2	57.5
65°	52.9	55.9	56.9	52.9	50.9
67.5°	46.7	48.7	47.7	46.7	43.7
70°	41.9	43.9	42.9	41.9	38.9
72.5°	37.2	39.1	38.1	37.1	35.0
75°	31.0	32.9	31.0	29.9	28.0
77.5°	24.0	25.7	24.8	23.9	22.0
80°	20.0	20.9	20.0	19.9	18.0
82.5°	16.0	16.2	15.2	15.2	14.0
85°	9.0	10.0	9.0	9.0	9.0
87.5°	3.2	3.4	3.8	3.8	3.0
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	8.97	9.84	9.73	10.59	11.49	8.64	9.51	9.39	10.26	11.16
	3H	9.49	10.26	10.26	11.02	11.96	9.15	9.92	9.92	10.68	11.61
	4H	9.76	10.48	10.55	11.25	12.20	9.39	10.11	10.18	10.88	11.83
	6H	9.99	10.65	10.79	11.43	12.39	9.59	10.25	10.39	11.04	11.99
	8H	10.06	10.69	10.88	11.49	12.45	9.66	10.29	10.47	11.08	12.04
	12H	10.10	10.70	10.92	11.49	12.47	9.71	10.30	10.52	11.09	12.07
4H	2H	8.99	9.71	9.79	10.49	11.43	8.69	9.41	9.48	10.18	11.13
	3H	9.73	10.32	10.53	11.12	12.09	9.42	10.00	10.22	10.81	11.77
	4H	10.14	10.67	10.95	11.47	12.47	9.79	10.32	10.60	11.12	12.12
	6H	10.51	10.96	11.34	11.79	12.79	10.13	10.58	10.96	11.41	12.41
	8H	10.64	11.06	11.47	11.89	12.90	10.25	10.68	11.09	11.50	12.51
	12H	10.72	11.09	11.57	11.94	12.96	10.33	10.71	11.19	11.56	12.57
8H	4H	10.22	10.64	11.05	11.47	12.48	9.89	10.32	10.73	11.15	12.15
	6H	10.71	11.06	11.57	11.93	12.94	10.36	10.71	11.22	11.58	12.59
	8H	10.92	11.23	11.80	12.10	13.12	10.56	10.87	11.44	11.74	12.77
	12H	11.08	11.36	11.96	12.21	13.29	10.72	11.00	11.60	11.85	12.93
12H	4H	10.19	10.57	11.05	11.42	12.43	9.88	10.25	10.73	11.10	12.11
	6H	10.73	11.03	11.60	11.90	12.93	10.39	10.70	11.26	11.56	12.59
	8H	10.97	11.24	11.84	12.10	13.18	10.63	10.90	11.50	11.75	12.84