

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: P854386

Luminaire Tested: SQ2-WBM-100U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854386
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2104-222-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-100U-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

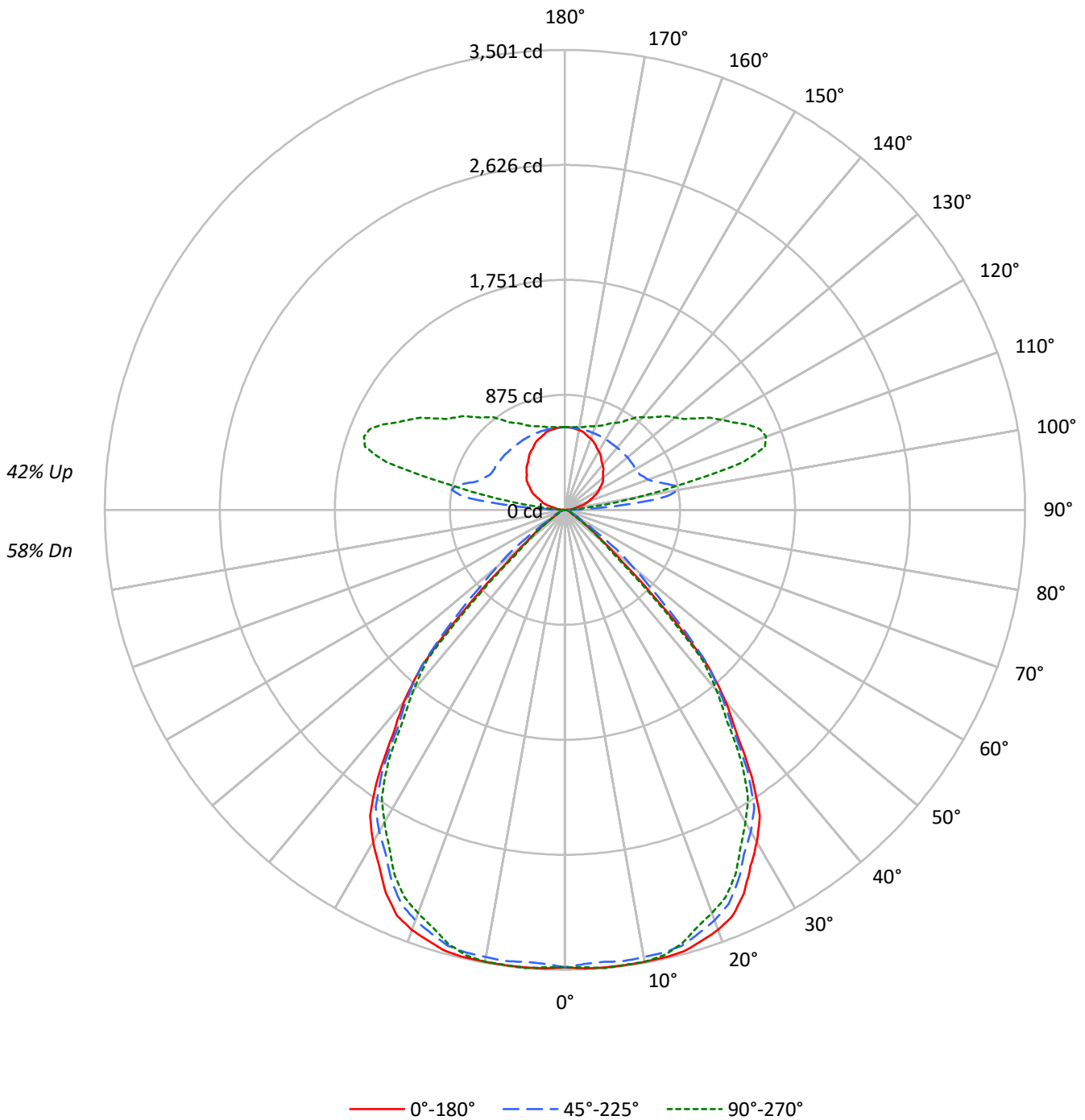
Lumens per Lamp: N/A
Luminaire Lumens: 9354.2 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 82.3
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									
RC	80									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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	64	64	64	58																			
1	102	98	95	92	95	92	89	87	80	78	76	69	68	67	59	59	58	53																			
2	94	88	83	79	88	83	79	75	73	70	67	64	61	59	55	54	52	48																			
3	88	80	74	69	82	75	70	65	66	62	59	58	55	53	51	49	47	44																			
4	81	72	65	60	76	68	62	58	61	56	52	54	50	47	47	45	43	39																			
5	76	66	58	53	71	62	56	51	55	51	47	49	46	43	44	41	39	36																			
6	70	60	53	48	66	57	50	46	51	46	42	45	42	39	40	37	35	33																			
7	66	55	48	43	62	52	46	41	47	42	38	42	38	35	38	34	32	30																			
8	61	50	43	39	58	48	42	37	43	38	35	39	35	32	35	32	29	27																			
9	58	46	40	35	54	44	38	34	40	35	32	36	32	29	33	29	27	25																			
10	54	43	36	32	51	41	35	31	37	32	29	34	30	27	30	27	25	23																			

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	3.6
10°-20°	972.5	10.4
20°-30°	1437.8	15.4
30°-40°	1485.7	15.9
40°-50°	893.9	9.6
50°-60°	214.8	2.3
60°-70°	58.7	0.6
70°-80°	32.7	0.3
80°-90°	11.4	0.1
90°-100°	262.6	2.8
100°-110°	794.4	8.5
110°-120°	775.4	8.3
120°-130°	633.7	6.8
130°-140°	517.2	5.5
140°-150°	402.6	4.3
150°-160°	290.3	3.1
160°-170°	177.7	1.9
170°-180°	60.0	0.6
0°-30°	2743.0	29.3
0°-40°	4228.7	45.2
0°-60°	5337.5	57.1
0°-90°	5440.2	58.2
90°-120°	1832.4	19.6
90°-150°	3386.0	36.2
90°-180°	3914.0	41.8
0°-180°	9354.2	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	2	12	7	6	2
95°	33	103	496	183	116	39
105°	138	194	780	1481	1408	145
115°	246	293	631	1305	1533	243
125°	344	381	622	1031	1213	305
135°	412	455	618	889	1000	319
145°	481	516	618	765	836	301
155°	548	566	622	686	712	252
165°	599	606	625	649	656	169
175°	627	627	628	633	631	59
180°	629	629	629	629	629	



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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	3.6	5.6	4.6	3.6
90°	0.0	1.9	11.8	6.9	5.9
92.5°	11.1	44.7	160.3	53.2	38.3
95°	32.6	103.0	495.6	183.1	115.5
97.5°	63.0	131.1	781.1	516.9	314.7
100°	81.9	148.5	872.7	843.7	566.7
102.5°	103.3	167.6	853.8	1183.4	943.4
105°	138.2	194.2	779.9	1481.2	1407.8
107.5°	171.4	224.9	708.9	1510.7	1595.6
110°	193.5	244.7	673.3	1473.5	1628.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	214.8	264.4	652.0	1411.3	1606.7
115°	245.8	293.1	630.9	1305.4	1533.2
117.5°	276.6	321.4	623.4	1206.2	1439.4
120°	297.2	339.6	621.0	1148.3	1372.3
122.5°	316.1	356.3	621.0	1097.4	1304.4
125°	343.6	381.2	622.0	1030.9	1213.3
127.5°	365.9	404.9	621.0	980.7	1136.3
130°	380.1	420.6	621.0	952.0	1092.9
132.5°	392.7	434.0	620.2	925.7	1055.8
135°	411.7	455.1	618.0	889.1	1000.1
137.5°	432.8	474.1	618.0	850.0	952.9
140°	446.2	486.8	618.0	824.6	922.1
142.5°	459.7	498.7	617.2	801.4	886.6
145°	480.8	516.5	618.0	764.8	836.2
147.5°	501.9	532.2	619.2	734.6	789.4
150°	515.4	543.3	620.0	717.8	764.1
152.5°	528.0	552.9	620.8	703.4	741.2
155°	547.9	566.3	622.0	685.8	711.8
157.5°	565.3	580.2	623.2	672.7	690.9
160°	575.6	588.1	623.9	664.7	678.2
162.5°	585.8	595.3	624.7	657.6	668.8
165°	599.3	606.0	624.9	648.8	656.5
167.5°	610.7	614.2	626.1	642.0	645.3
170°	617.0	619.0	626.9	638.8	639.7
172.5°	621.0	622.1	626.9	635.6	635.8
175°	626.9	626.9	627.9	632.8	630.9
177.5°	629.7	628.9	628.1	630.4	628.9
180°	628.9	628.9	628.9	628.9	628.9



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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	7.65	8.42	8.57	9.33	10.49	7.32	8.08	8.24	9.00	10.16
	3H	8.17	8.84	9.10	9.76	10.95	7.82	8.50	8.75	9.42	10.61
	4H	8.43	9.07	9.38	9.99	11.19	8.06	8.70	9.01	9.62	10.82
	6H	8.66	9.24	9.61	10.17	11.38	8.26	8.84	9.22	9.78	10.99
	8H	8.73	9.28	9.69	10.23	11.44	8.33	8.88	9.29	9.83	11.04
	12H	8.77	9.29	9.73	10.23	11.46	8.37	8.89	9.33	9.84	11.06
4H	2H	7.66	8.30	8.62	9.23	10.43	7.36	8.00	8.31	8.92	10.12
	3H	8.39	8.91	9.35	9.87	11.08	8.08	8.60	9.04	9.56	10.77
	4H	8.80	9.27	9.76	10.23	11.46	8.45	8.92	9.41	9.88	11.11
	6H	9.17	9.57	10.15	10.55	11.79	8.79	9.19	9.77	10.17	11.41
	8H	9.30	9.68	10.28	10.64	11.89	8.91	9.29	9.89	10.26	11.51
	12H	9.38	9.71	10.37	10.70	11.95	8.99	9.33	9.99	10.32	11.57
8H	4H	8.88	9.26	9.86	10.23	11.47	8.56	8.93	9.53	9.90	11.15
	6H	9.37	9.68	10.37	10.69	11.94	9.02	9.33	10.02	10.34	11.59
	8H	9.59	9.86	10.60	10.86	12.12	9.23	9.50	10.24	10.50	11.77
	12H	9.74	9.98	10.75	10.98	12.29	9.39	9.63	10.40	10.62	11.93
12H	4H	8.85	9.19	9.84	10.17	11.43	8.53	8.87	9.53	9.86	11.11
	6H	9.39	9.66	10.40	10.66	11.93	9.05	9.32	10.06	10.33	11.59
	8H	9.63	9.87	10.64	10.86	12.18	9.29	9.53	10.30	10.52	11.83