

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: P854399

Luminaire Tested: SQ2-WBM-125U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854399
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2104-222-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-125U-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

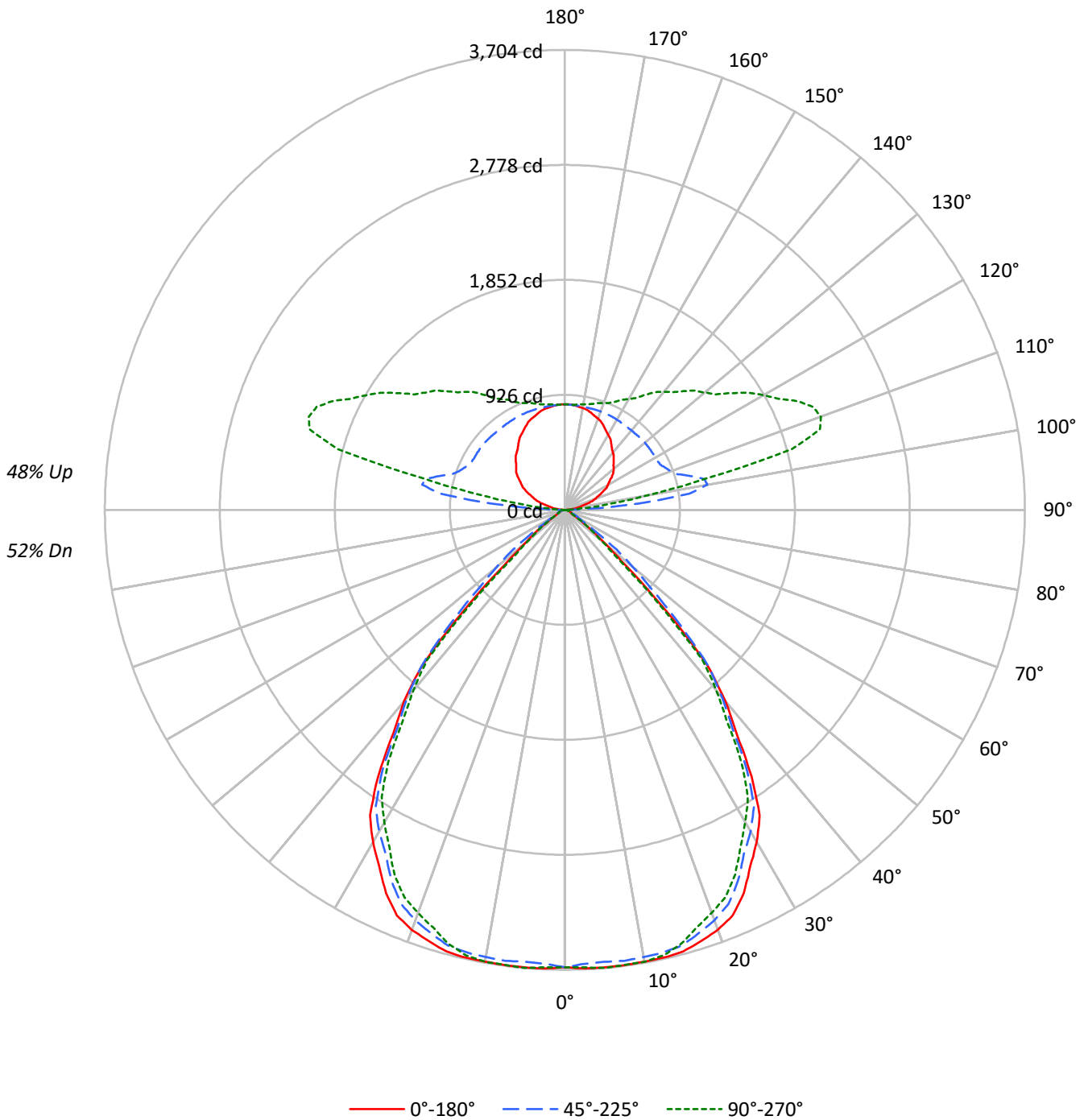
Lumens per Lamp: N/A
Luminaire Lumens: 10993.2 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 93.6
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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	58	58	58	52				
1	100	97	93	90	93	90	87	85	77	75	73	65	64	63	54	54	53	48				
2	93	87	82	77	86	81	76	73	70	67	64	60	58	56	50	49	48	43				
3	86	78	72	67	80	73	68	63	63	60	56	55	52	49	47	45	43	39				
4	80	71	64	58	74	66	60	56	58	53	50	50	47	44	43	41	39	36				
5	74	64	57	52	69	60	54	49	53	48	44	46	43	40	40	37	35	32				
6	69	58	51	46	64	55	48	44	48	44	40	42	39	36	37	34	32	29				
7	64	53	46	41	60	50	44	39	45	40	36	39	35	33	34	31	29	27				
8	60	49	42	37	56	46	40	36	41	36	33	36	32	30	32	29	27	25				
9	56	45	38	34	52	43	36	32	38	33	30	34	30	27	30	27	25	23				
10	53	42	35	31	49	39	33	29	35	30	27	31	28	25	28	25	23	21				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	59473	59473	59473
5°	59940	59221	60026
10°	60581	59940	60599
15°	61553	60740	60495
20°	61855	60458	59369
25°	60690	58772	57774
30°	57586	55754	54178
35°	51637	50407	48846
40°	42392	41456	39943
45°	26508	30102	24048
50°	10482	17804	9367
55°	5084	8087	5025
60°	2386	3956	2183
65°	2139	2300	2059
70°	2096	2143	1945
75°	2040	2040	1847
80°	1962	1962	1767
85°	1760	1760	1760

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 30102 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	352.0	3.2
10°-20°	1028.7	9.4
20°-30°	1520.8	13.8
30°-40°	1571.5	14.3
40°-50°	945.6	8.6
50°-60°	227.3	2.1
60°-70°	62.1	0.6
70°-80°	34.6	0.3
80°-90°	11.8	0.1
90°-100°	324.8	3.0
100°-110°	1057.5	9.6
110°-120°	1046.1	9.5
120°-130°	854.9	7.8
130°-140°	698.7	6.4
140°-150°	544.2	5.0
150°-160°	392.3	3.6
160°-170°	239.8	2.2
170°-180°	80.9	0.7
0°-30°	2901.5	26.4
0°-40°	4473.0	40.7
0°-60°	5645.8	51.4
0°-90°	5754.2	52.3
90°-120°	2428.4	22.1
90°-150°	4526.1	41.2
90°-180°	5239.0	47.7
0°-180°	10993.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3684	3684	3684	3684	3684	
5°	3698	3687	3654	3706	3704	353
15°	3682	3710	3634	3635	3619	1038
25°	3407	3433	3299	3252	3243	1557
35°	2620	2614	2557	2508	2478	1612
45°	1161	1318	1318	1246	1053	899
55°	181	203	287	194	178	184
65°	56	59	60	56	54	57
75°	33	35	33	32	30	34
85°	10	10	10	10	10	11
90°	0	3	7	6	6	3
95°	44	134	595	212	131	51
105°	180	259	1048	2001	1895	192
115°	332	396	853	1759	2069	329
125°	462	515	842	1388	1637	411
135°	558	616	838	1198	1352	431
145°	652	700	836	1032	1130	408
155°	744	768	841	924	959	343
165°	812	819	843	874	885	229
175°	846	846	846	852	850	80
180°	849	849	849	849	849	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3683.5	3683.5	3683.5	3683.5	3683.5
2.5°	3697.0	3687.9	3659.0	3692.7	3686.9
5°	3698.3	3686.9	3653.9	3705.6	3703.6
7.5°	3697.7	3691.7	3663.6	3703.4	3695.3
10°	3695.1	3698.2	3656.0	3699.3	3696.2
12.5°	3693.4	3707.3	3651.8	3682.3	3674.2
15°	3682.4	3710.3	3633.8	3634.6	3619.1
17.5°	3642.3	3676.2	3577.0	3547.6	3528.0
20°	3600.0	3633.1	3518.7	3474.9	3455.3
22.5°	3534.1	3564.7	3437.6	3393.1	3376.7
25°	3406.7	3432.6	3299.0	3252.3	3243.0
27.5°	3235.0	3245.9	3123.2	3077.4	3061.5
30°	3088.8	3089.8	2990.5	2936.0	2906.0
32.5°	2918.9	2911.7	2835.0	2780.3	2742.9
35°	2619.8	2613.6	2557.4	2508.2	2478.2
37.5°	2268.2	2267.2	2213.7	2171.2	2141.0
40°	2011.3	2018.5	1966.9	1913.7	1895.1
42.5°	1703.7	1757.2	1713.4	1655.2	1643.3
45°	1160.9	1317.9	1318.3	1246.3	1053.2
47.5°	664.0	833.4	948.8	734.5	545.3
50°	417.3	545.3	708.8	447.3	372.9
52.5°	296.4	359.2	524.6	314.6	278.2
55°	180.6	203.4	287.3	194.0	178.5
57.5°	109.4	130.7	166.5	130.1	109.9
60°	73.9	93.6	122.5	86.2	67.6
62.5°	65.5	72.7	96.3	67.9	60.8
65°	56.0	59.1	60.2	55.9	53.9
67.5°	49.4	51.5	50.5	49.4	46.3
70°	44.4	46.4	45.4	44.3	41.2
72.5°	39.3	41.4	40.4	39.2	37.0
75°	32.7	34.8	32.7	31.6	29.6
77.5°	25.4	27.2	26.2	25.3	23.2
80°	21.1	22.2	21.1	21.1	19.0
82.5°	16.9	17.1	16.1	16.0	14.8
85°	9.5	10.5	9.5	9.5	9.5
87.5°	3.4	4.0	4.8	4.6	3.8
90°	0.0	3.1	7.3	6.3	6.3
92.5°	15.0	54.1	172.8	56.9	43.9
95°	43.9	133.7	595.3	212.3	130.6
97.5°	82.5	174.0	1010.4	615.4	375.6
100°	107.6	197.4	1166.7	1040.3	674.7
102.5°	136.0	222.6	1147.4	1539.1	1170.2
105°	179.6	259.3	1047.6	2000.8	1894.6
107.5°	226.9	301.8	952.7	2040.9	2153.4
110°	261.1	329.5	907.6	1991.2	2194.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	289.5	357.1	879.2	1901.4	2163.5
115°	332.1	396.5	853.3	1758.6	2069.1
117.5°	376.0	434.0	843.3	1627.8	1936.8
120°	401.1	458.3	840.8	1547.4	1846.6
122.5°	425.3	481.7	841.6	1477.5	1756.3
125°	461.6	514.8	841.8	1388.5	1636.7
127.5°	492.8	547.1	841.6	1321.8	1528.7
130°	512.8	568.0	840.8	1283.7	1468.5
132.5°	530.4	588.0	839.9	1248.3	1421.7
135°	557.7	615.9	837.6	1198.3	1351.5
137.5°	584.5	643.1	835.4	1147.6	1283.6
140°	603.7	659.9	834.5	1113.2	1241.9
142.5°	622.1	675.8	834.5	1080.3	1195.1
145°	651.7	699.7	835.6	1032.1	1130.1
147.5°	680.6	722.2	837.0	991.0	1066.8
150°	699.8	736.5	838.7	966.5	1030.9
152.5°	719.0	749.2	839.5	947.9	999.1
155°	743.6	768.2	840.8	924.1	958.8
157.5°	767.0	784.6	842.0	906.5	930.8
160°	781.2	795.5	842.9	895.5	914.9
162.5°	793.8	804.8	842.9	886.2	900.7
165°	811.5	818.7	842.9	874.4	884.6
167.5°	824.1	828.6	843.1	865.6	870.9
170°	832.4	834.5	843.9	859.6	861.7
172.5°	838.3	839.5	845.6	856.2	855.8
175°	846.0	846.0	846.0	852.2	850.2
177.5°	849.1	848.3	847.5	851.6	848.3
180°	849.1	849.1	849.1	849.1	849.1

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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	7.31	8.04	8.28	9.00	10.25	6.98	7.71	7.95	8.67	9.92
	3H	7.82	8.47	8.80	9.44	10.71	7.48	8.13	8.46	9.10	10.37
	4H	8.09	8.70	9.08	9.67	10.95	7.72	8.33	8.71	9.30	10.58
	6H	8.31	8.87	9.31	9.85	11.14	7.92	8.48	8.92	9.45	10.75
	8H	8.38	8.91	9.39	9.91	11.20	7.98	8.51	8.99	9.51	10.80
	12H	8.42	8.92	9.43	9.91	11.22	8.02	8.52	9.03	9.51	10.82
4H	2H	7.32	7.93	8.32	8.90	10.19	7.02	7.63	8.02	8.60	9.88
	3H	8.05	8.55	9.05	9.55	10.84	7.73	8.24	8.74	9.24	10.53
	4H	8.45	8.91	9.46	9.90	11.22	8.10	8.56	9.11	9.56	10.87
	6H	8.82	9.21	9.84	10.23	11.55	8.44	8.83	9.46	9.85	11.17
	8H	8.95	9.31	9.97	10.33	11.65	8.56	8.93	9.59	9.94	11.27
	12H	9.02	9.35	10.06	10.38	11.71	8.64	8.97	9.68	10.00	11.33
8H	4H	8.53	8.89	9.55	9.91	11.23	8.21	8.57	9.23	9.58	10.91
	6H	9.02	9.32	10.07	10.38	11.70	8.67	8.97	9.72	10.03	11.35
	8H	9.24	9.50	10.29	10.54	11.89	8.88	9.14	9.93	10.18	11.53
	12H	9.39	9.62	10.45	10.66	12.05	9.04	9.27	10.09	10.30	11.69
12H	4H	8.50	8.83	9.54	9.85	11.19	8.18	8.51	9.22	9.54	10.87
	6H	9.04	9.30	10.10	10.35	11.69	8.70	8.97	9.76	10.01	11.35
	8H	9.28	9.51	10.34	10.55	11.94	8.94	9.17	9.99	10.20	11.59