

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: P854411

Luminaire Tested: SQ2-WBM-150U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854411
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2104-222-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-150U-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

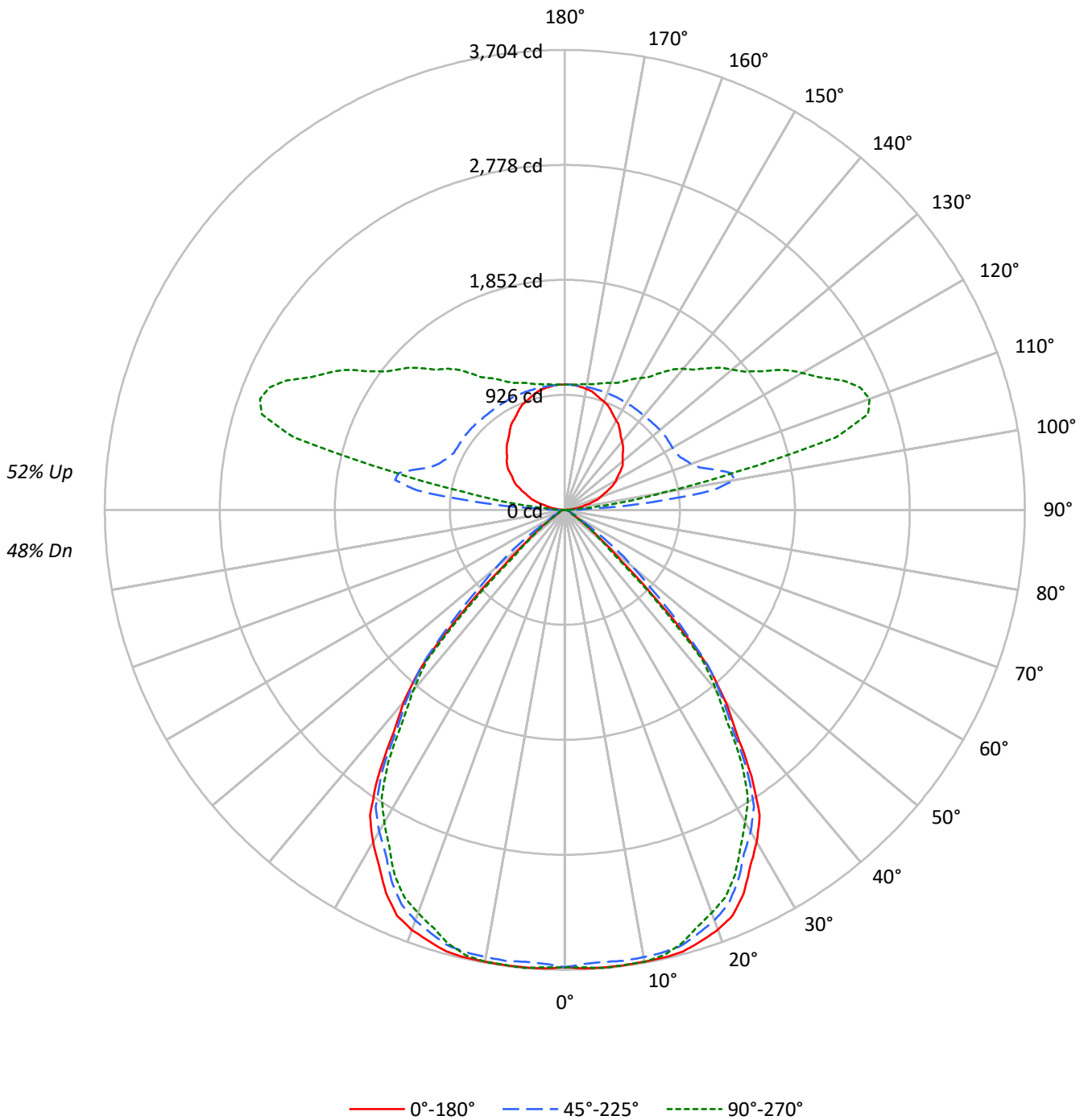
Lumens per Lamp: N/A
Luminaire Lumens: 11989.6 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 106.3
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					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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48				48
1	99	95	92	89	91	88	85	83	75	73	71	62	61	60	51	50	49				44	
2	92	85	80	76	84	79	75	71	68	64	62	57	55	53	47	45	44				40	
3	85	77	71	66	78	71	66	62	61	57	54	52	49	47	43	41	40				36	
4	79	69	62	57	73	65	59	54	56	51	48	48	44	42	40	38	36				33	
5	73	63	56	50	67	59	52	48	51	46	43	44	40	38	37	35	33				30	
6	68	57	50	45	63	53	47	42	47	42	38	40	37	34	34	32	30				27	
7	63	52	45	40	58	49	43	38	43	38	34	37	33	31	32	29	27				25	
8	59	48	41	36	55	45	39	34	39	35	31	34	31	28	30	27	25				23	
9	55	44	37	32	51	41	35	31	36	32	28	32	28	26	28	25	23				21	
10	52	41	34	29	48	38	32	28	34	29	26	30	26	23	26	23	21				19	

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	2.9
10°-20°	1028.7	8.6
20°-30°	1520.8	12.7
30°-40°	1571.5	13.1
40°-50°	945.6	7.9
50°-60°	227.3	1.9
60°-70°	62.1	0.5
70°-80°	34.6	0.3
80°-90°	12.0	0.1
90°-100°	384.9	3.2
100°-110°	1260.4	10.5
110°-120°	1246.1	10.4
120°-130°	1018.6	8.5
130°-140°	831.2	6.9
140°-150°	646.9	5.4
150°-160°	465.8	3.9
160°-170°	285.0	2.4
170°-180°	96.3	0.8
0°-30°	2901.5	24.2
0°-40°	4473.0	37.3
0°-60°	5645.8	47.1
0°-90°	5754.4	48.0
90°-120°	2891.4	24.1
90°-150°	5388.2	44.9
90°-180°	6235.0	52.0
0°-180°	11989.6	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°	1	3	8	7	8	3
95°	54	156	700	249	162	61
105°	219	312	1251	2377	2258	231
115°	394	472	1016	2100	2466	390
125°	549	612	1002	1656	1946	489
135°	661	731	994	1429	1610	512
145°	774	830	992	1229	1347	485
155°	882	911	998	1099	1142	406
165°	962	972	1002	1041	1052	271
175°	1006	1006	1007	1014	1012	95
180°	1010	1010	1010	1010	1010	



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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°	3.6	4.0	5.0	4.8	4.2
90°	1.0	3.1	8.3	7.3	8.3
92.5°	17.7	64.3	197.7	64.3	51.5
95°	54.0	156.5	699.8	249.3	162.0
97.5°	98.0	206.4	1200.6	726.3	450.2
100°	128.7	232.3	1389.2	1240.5	822.3
102.5°	163.6	264.7	1368.4	1827.9	1417.0
105°	219.1	312.5	1251.1	2377.0	2258.2
107.5°	273.7	359.4	1136.7	2428.3	2558.9
110°	309.4	392.6	1081.9	2368.6	2611.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	343.5	424.3	1048.6	2264.6	2575.5
115°	394.5	471.7	1016.4	2100.4	2465.8
117.5°	444.2	516.2	1004.2	1939.0	2310.1
120°	476.6	544.6	1000.9	1844.9	2206.3
122.5°	505.6	572.0	1000.9	1763.7	2099.1
125°	549.2	612.2	1001.9	1656.4	1945.7
127.5°	586.2	650.4	1000.7	1577.2	1829.0
130°	609.5	674.4	999.8	1529.3	1756.7
132.5°	630.2	696.8	997.3	1488.1	1694.4
135°	661.4	731.4	993.6	1428.6	1610.3
137.5°	694.2	763.6	991.3	1366.5	1530.8
140°	717.4	784.4	990.5	1327.3	1482.6
142.5°	740.7	803.6	990.5	1285.4	1426.1
145°	773.5	830.3	991.5	1228.9	1346.6
147.5°	808.0	855.3	993.0	1179.6	1268.5
150°	829.6	871.2	994.6	1151.1	1226.2
152.5°	851.2	887.9	995.5	1127.5	1189.6
155°	881.5	910.9	997.8	1099.4	1142.1
157.5°	908.7	930.0	1000.0	1077.4	1108.2
160°	926.1	943.4	1000.9	1064.8	1089.1
162.5°	941.1	955.1	1000.9	1054.6	1072.5
165°	962.5	971.6	1001.9	1040.6	1051.7
167.5°	980.5	985.0	1003.2	1029.7	1035.8
170°	990.5	992.5	1004.0	1023.8	1025.8
172.5°	998.0	999.2	1006.5	1019.6	1020.0
175°	1006.1	1006.1	1007.1	1014.3	1012.3
177.5°	1010.2	1009.4	1008.6	1013.5	1010.2
180°	1010.2	1010.2	1010.2	1010.2	1010.2



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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	6.89	7.60	7.89	8.59	9.90	6.56	7.26	7.56	8.26	9.57
	3H	7.40	8.03	8.41	9.03	10.36	7.06	7.68	8.07	8.69	10.02
	4H	7.66	8.25	8.69	9.26	10.60	7.29	7.88	8.32	8.89	10.23
	6H	7.88	8.43	8.92	9.44	10.79	7.49	8.03	8.53	9.04	10.40
	8H	7.95	8.47	9.00	9.50	10.84	7.55	8.07	8.60	9.10	10.44
	12H	7.99	8.48	9.04	9.50	10.87	7.59	8.08	8.64	9.10	10.47
4H	2H	6.89	7.49	7.93	8.49	9.84	6.59	7.18	7.63	8.19	9.53
	3H	7.62	8.11	8.66	9.14	10.49	7.31	7.80	8.35	8.83	10.18
	4H	8.02	8.47	9.07	9.50	10.87	7.67	8.12	8.72	9.15	10.52
	6H	8.39	8.77	9.45	9.82	11.19	8.01	8.39	9.07	9.44	10.82
	8H	8.52	8.88	9.58	9.92	11.30	8.13	8.49	9.19	9.53	10.92
	12H	8.60	8.91	9.67	9.97	11.36	8.21	8.53	9.28	9.59	10.98
8H	4H	8.10	8.46	9.16	9.50	10.88	7.78	8.13	8.83	9.18	10.56
	6H	8.60	8.89	9.67	9.97	11.35	8.25	8.54	9.32	9.62	11.01
	8H	8.81	9.06	9.89	10.14	11.54	8.45	8.71	9.54	9.78	11.18
	12H	8.97	9.19	10.05	10.25	11.70	8.61	8.83	9.69	9.89	11.34
12H	4H	8.07	8.39	9.14	9.45	10.84	7.76	8.07	8.83	9.13	10.52
	6H	8.61	8.87	9.70	9.94	11.34	8.28	8.53	9.36	9.60	11.00
	8H	8.85	9.08	9.94	10.14	11.59	8.51	8.73	9.59	9.80	11.24