

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: P854365

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854365
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

Summary

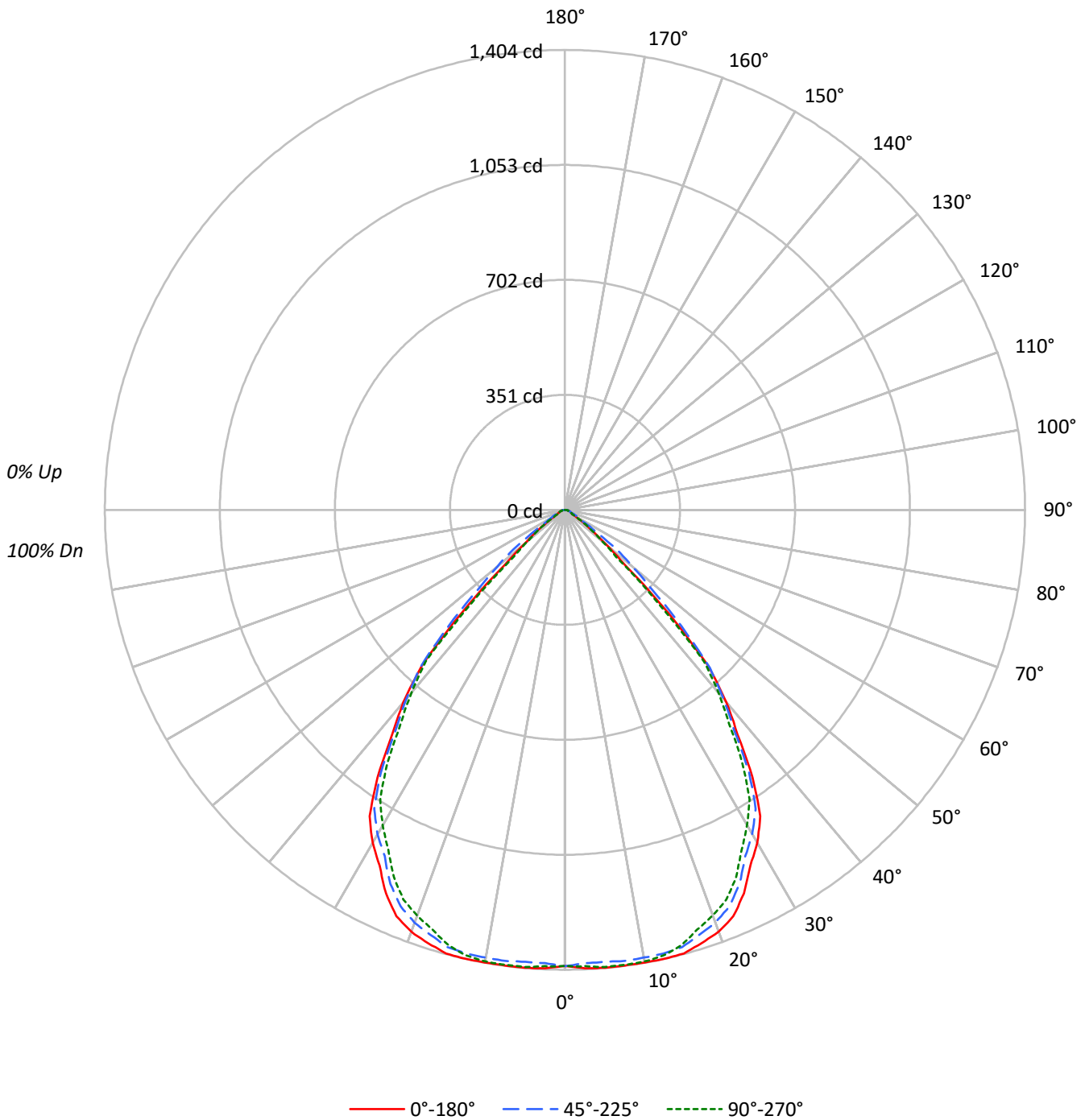
Lumens per Lamp: N/A
Luminaire Lumens: 2192.5 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.19 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 18.1
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	109	106	104	110	107	104	102	103	101	99	99	98	96	96	94	93	91				
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85	83				
3	99	92	86	81	97	90	85	80	87	83	79	85	81	78	83	79	77	75				
4	93	84	78	73	91	83	77	72	81	75	71	78	74	70	77	73	70	68				
5	87	77	70	65	85	76	70	65	74	69	65	73	68	64	71	67	63	62				
6	82	71	64	59	80	70	64	59	69	63	59	67	62	58	66	61	58	56				
7	77	66	59	54	75	65	59	54	64	58	54	63	57	53	61	57	53	51				
8	72	61	54	49	71	61	54	49	59	53	49	58	53	49	57	52	49	47				
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22491	22491	22491
5°	22739	22447	22707
10°	23002	22756	22953
15°	23435	23101	23000
20°	23557	23041	22646
25°	23017	22447	22019
30°	21888	21310	20732
35°	19671	19297	18607
40°	16166	15829	15365
45°	10229	11485	9225
50°	3969	6757	3642
55°	1914	3068	1942
60°	904	1518	840
65°	802	879	764
70°	803	803	755
75°	749	811	686
80°	744	744	651
85°	741	741	556

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 11485 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.4	6.1
10°-20°	391.4	17.8
20°-30°	579.5	26.4
30°-40°	600.3	27.4
40°-50°	360.8	16.5
50°-60°	86.3	3.9
60°-70°	23.5	1.1
70°-80°	13.1	0.6
80°-90°	4.2	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1104.3	50.4
0°-40°	1704.6	77.7
0°-60°	2151.7	98.1
0°-90°	2192.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2192.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1393	1393	1393	1393	1393	
5°	1403	1398	1385	1403	1401	134
15°	1402	1411	1382	1383	1376	395
25°	1292	1304	1260	1244	1236	591
35°	998	996	979	961	944	614
45°	448	503	503	476	404	343
55°	68	78	109	73	69	69
65°	21	22	23	21	20	21
75°	12	13	13	12	11	13
85°	4	4	4	4	3	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1393.0	1393.0	1393.0	1393.0	1393.0
2.5°	1401.0	1396.3	1385.0	1397.7	1394.6
5°	1403.0	1398.1	1385.0	1403.0	1401.0
7.5°	1403.0	1399.9	1388.8	1403.7	1400.8
10°	1403.0	1403.0	1388.0	1402.9	1400.0
12.5°	1403.8	1407.7	1387.2	1398.1	1393.6
15°	1402.0	1410.8	1382.0	1382.8	1376.0
17.5°	1387.0	1400.7	1361.0	1353.0	1343.6
20°	1371.0	1384.7	1341.0	1325.8	1318.0
22.5°	1343.0	1357.5	1310.6	1296.2	1287.6
25°	1292.0	1303.7	1260.0	1243.8	1236.0
27.5°	1224.4	1229.7	1191.8	1176.6	1168.0
30°	1174.0	1173.0	1143.0	1123.7	1112.0
32.5°	1109.2	1110.6	1083.0	1064.4	1048.8
35°	998.0	996.0	979.0	960.6	944.0
37.5°	865.4	866.8	848.6	829.1	822.6
40°	767.0	769.9	751.0	730.0	729.0
42.5°	647.0	668.7	655.0	633.1	629.0
45°	448.0	502.8	503.0	476.4	404.0
47.5°	249.2	317.6	358.6	282.8	211.4
50°	158.0	203.0	269.0	169.4	145.0
52.5°	112.4	134.7	199.4	120.9	105.8
55°	68.0	77.8	109.0	72.9	69.0
57.5°	41.6	50.2	63.8	49.4	41.2
60°	28.0	35.8	47.0	31.9	26.0
62.5°	24.8	27.1	36.6	25.6	23.6
65°	21.0	22.0	23.0	21.0	20.0
67.5°	18.6	19.6	19.4	18.6	17.6
70°	17.0	18.0	17.0	17.0	16.0
72.5°	15.4	15.6	15.4	14.6	14.4
75°	12.0	13.0	13.0	12.0	11.0
77.5°	9.6	10.4	9.6	9.6	8.6
80°	8.0	8.0	8.0	8.0	7.0
82.5°	6.4	6.4	6.4	6.4	5.4
85°	4.0	4.0	4.0	4.0	3.0
87.5°	1.6	1.6	1.6	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0



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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	7.93	9.11	8.30	9.43	9.74	7.53	8.71	7.90	9.02	9.34
	3H	8.47	9.51	8.86	9.84	10.21	8.08	9.11	8.46	9.44	9.81
	4H	8.74	9.70	9.15	10.05	10.44	8.33	9.29	8.73	9.64	10.03
	6H	8.97	9.85	9.38	10.22	10.61	8.53	9.41	8.95	9.79	10.18
	8H	9.05	9.88	9.48	10.27	10.68	8.60	9.43	9.03	9.82	10.23
	12H	9.11	9.90	9.54	10.28	10.71	8.63	9.42	9.07	9.81	10.24
4H	2H	7.99	8.95	8.40	9.30	9.69	7.62	8.58	8.03	8.94	9.32
	3H	8.75	9.52	9.16	9.93	10.34	8.39	9.16	8.80	9.57	9.97
	4H	9.14	9.83	9.58	10.25	10.70	8.76	9.45	9.20	9.87	10.32
	6H	9.50	10.09	9.97	10.54	11.01	9.10	9.70	9.57	10.15	10.62
	8H	9.63	10.18	10.10	10.63	11.10	9.22	9.77	9.69	10.22	10.69
	12H	9.73	10.22	10.22	10.70	11.18	9.29	9.77	9.78	10.26	10.74
8H	4H	9.24	9.79	9.71	10.24	10.71	8.89	9.44	9.36	9.89	10.37
	6H	9.70	10.15	10.21	10.65	11.14	9.35	9.80	9.86	10.30	10.78
	8H	9.90	10.31	10.43	10.83	11.32	9.54	9.94	10.07	10.46	10.96
	12H	10.09	10.45	10.61	10.94	11.52	9.69	10.05	10.21	10.55	11.12
12H	4H	9.22	9.71	9.71	10.19	10.67	8.88	9.36	9.37	9.85	10.33
	6H	9.71	10.12	10.24	10.63	11.13	9.37	9.77	9.89	10.29	10.78
	8H	9.97	10.32	10.48	10.82	11.40	9.61	9.97	10.13	10.47	11.04