

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: P854378

Luminaire Tested: SQ2-WBM-100U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854378
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2104-222-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-100U-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

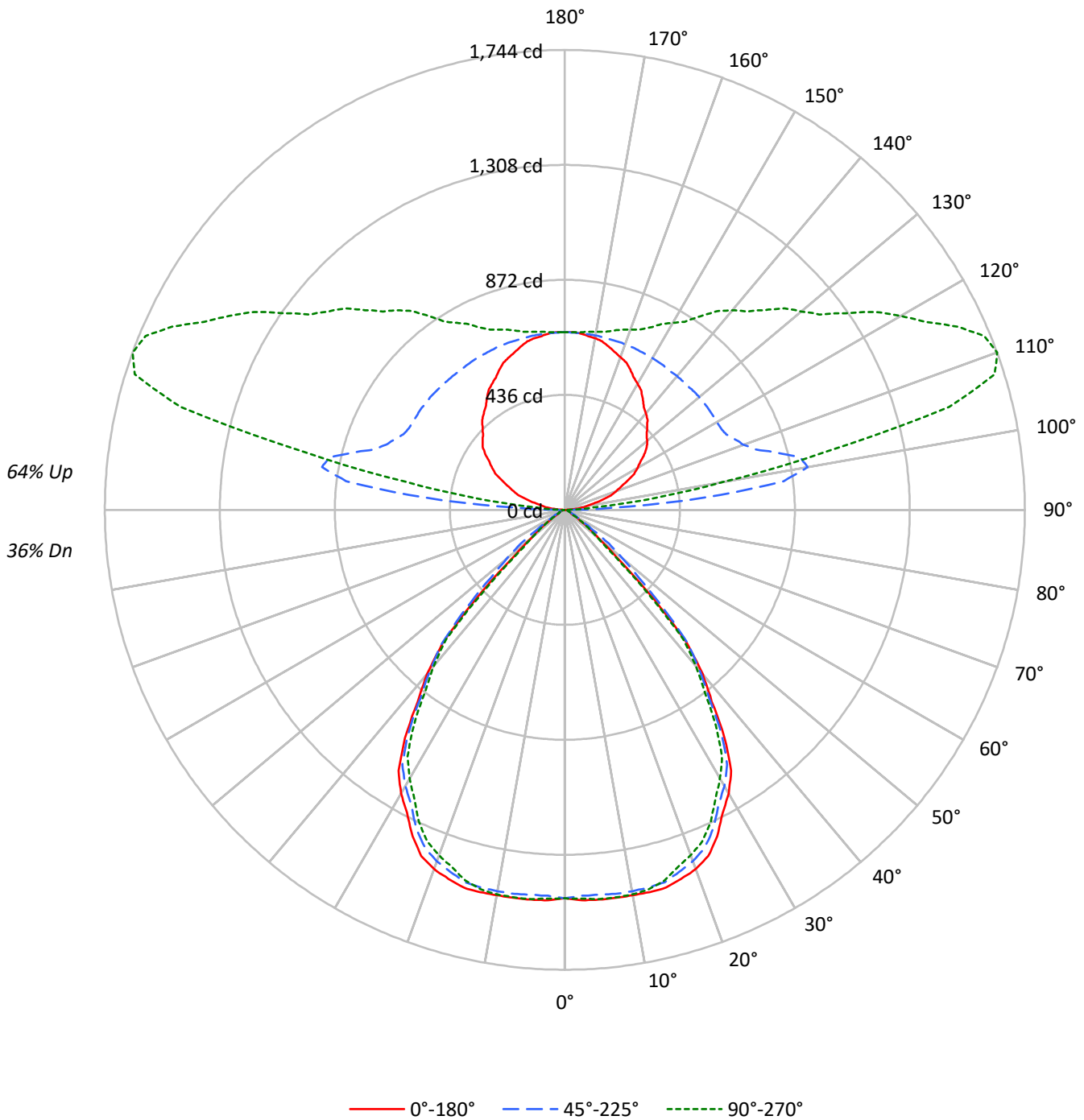
Lumens per Lamp: N/A
Luminaire Lumens: 6512.7 lumens
Efficiency: N/A
Efficacy: 128.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.19 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 50.7
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

TEST NUMBER: P854378

CATALOG NUMBER: SQ2-WBM-100U-050D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854378

CATALOG NUMBER: SQ2-WBM-100U-050D-940-UNV-STD-W-4

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	0
RCR																		
0	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	36
1	96	92	89	86	87	84	81	78	68	66	64	53	52	51	40	39	39	33
2	88	82	77	72	80	75	70	66	61	58	55	48	46	45	37	36	35	29
3	81	73	67	62	74	67	62	57	55	51	48	44	42	40	34	32	31	27
4	75	66	59	54	68	60	54	50	50	46	42	40	37	35	31	29	28	24
5	70	59	52	47	63	54	48	44	45	41	37	37	34	31	29	27	25	22
6	64	54	46	41	59	49	43	38	41	37	33	34	31	28	27	25	23	20
7	60	49	42	37	54	45	39	34	38	33	30	31	28	25	25	23	21	18
8	56	44	37	33	51	41	35	31	35	30	27	29	25	23	23	21	19	17
9	52	41	34	29	47	38	32	28	32	27	24	26	23	21	21	19	18	15
10	49	38	31	26	44	35	29	25	30	25	22	25	21	19	20	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23791	23791	23791
5°	24052	23744	24018
10°	24330	24071	24279
15°	24789	24435	24329
20°	24917	24373	23953
25°	24346	23744	23291
30°	23152	22540	21929
35°	20808	20412	19681
40°	17100	16743	16252
45°	10821	12150	9757
50°	4197	7146	3853
55°	2024	3246	2055
60°	956	1605	888
65°	848	928	810
70°	850	850	798
75°	792	861	724
80°	790	790	688
85°	778	778	593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12150 cd/sqm



TEST NUMBER: P854378

CATALOG NUMBER: SQ2-WBM-100U-050D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.1	2.2
10°-20°	414.0	6.4
20°-30°	613.0	9.4
30°-40°	635.0	9.8
40°-50°	381.7	5.9
50°-60°	91.2	1.4
60°-70°	24.9	0.4
70°-80°	13.9	0.2
80°-90°	5.6	0.1
90°-100°	281.3	4.3
100°-110°	850.9	13.1
110°-120°	830.6	12.8
120°-130°	678.7	10.4
130°-140°	554.0	8.5
140°-150°	431.3	6.6
150°-160°	310.9	4.8
160°-170°	190.3	2.9
170°-180°	64.3	1.0
0°-30°	1168.1	17.9
0°-40°	1803.0	27.7
0°-60°	2275.9	34.9
0°-90°	2320.3	35.6
90°-120°	1962.8	30.1
90°-150°	3626.9	55.7
90°-180°	4192.0	64.4
0°-180°	6512.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1474	1474	1474	1474	1474	
5°	1484	1479	1465	1484	1482	142
15°	1483	1492	1462	1463	1456	418
25°	1367	1379	1333	1316	1307	625
35°	1056	1054	1036	1016	998	649
45°	474	532	532	504	427	362
55°	72	82	115	77	73	73
65°	22	23	24	22	21	23
75°	13	14	14	13	12	14
85°	4	4	4	4	3	4
90°	0	2	13	7	6	2
95°	35	110	531	196	124	41
105°	148	208	835	1587	1508	155
115°	263	314	676	1398	1642	260
125°	368	408	666	1104	1300	327
135°	441	488	662	952	1071	341
145°	515	553	662	819	896	323
155°	587	606	666	734	762	270
165°	642	649	669	695	703	181
175°	672	672	673	678	676	64
180°	674	674	674	674	674	



TEST NUMBER: P854378

CATALOG NUMBER: SQ2-WBM-100U-050D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1473.5	1473.5	1473.5	1473.5	1473.5
2.5°	1481.9	1477.0	1465.0	1478.5	1475.2
5°	1484.0	1478.9	1465.0	1484.0	1481.9
7.5°	1484.0	1480.7	1469.0	1484.8	1481.7
10°	1484.0	1484.0	1468.2	1484.0	1480.9
12.5°	1484.9	1489.0	1467.3	1478.9	1474.1
15°	1483.0	1492.3	1461.8	1462.7	1455.5
17.5°	1467.1	1481.6	1439.6	1431.1	1421.2
20°	1450.2	1464.7	1418.5	1402.4	1394.1
22.5°	1420.6	1435.9	1386.3	1371.1	1362.0
25°	1366.6	1379.0	1332.8	1315.7	1307.4
27.5°	1295.1	1300.7	1260.6	1244.6	1235.5
30°	1241.8	1240.8	1209.0	1188.6	1176.2
32.5°	1173.3	1174.7	1145.6	1125.9	1109.4
35°	1055.7	1053.6	1035.6	1016.1	998.5
37.5°	915.4	916.8	897.6	876.9	870.1
40°	811.3	814.4	794.4	772.1	771.1
42.5°	684.4	707.3	692.8	669.7	665.3
45°	473.9	531.8	532.1	503.9	427.3
47.5°	263.6	336.0	379.3	299.1	223.6
50°	167.1	214.7	284.5	179.2	153.4
52.5°	118.9	142.5	210.9	127.8	111.9
55°	71.9	82.3	115.3	77.1	73.0
57.5°	44.0	53.1	67.5	52.3	43.6
60°	29.6	37.9	49.7	33.7	27.5
62.5°	26.2	28.7	38.7	27.0	25.0
65°	22.2	23.2	24.3	22.2	21.2
67.5°	19.7	20.7	20.5	19.7	18.6
70°	18.0	19.0	18.0	18.0	16.9
72.5°	16.3	16.5	16.3	15.4	15.2
75°	12.7	13.7	13.8	12.7	11.6
77.5°	10.2	11.0	10.2	10.1	9.1
80°	8.5	8.5	8.5	8.4	7.4
82.5°	6.8	6.8	6.8	6.7	5.7
85°	4.2	4.2	4.2	4.2	3.2
87.5°	1.7	2.1	4.2	2.3	2.1
90°	0.0	2.1	12.7	7.4	6.3
92.5°	11.8	47.8	171.7	57.0	41.0
95°	34.9	110.4	530.9	196.1	123.7
97.5°	67.5	140.5	836.7	553.6	337.1
100°	87.8	159.1	934.8	903.8	607.0
102.5°	110.6	179.5	914.5	1267.6	1010.5
105°	148.0	208.0	835.4	1586.6	1508.0
107.5°	183.6	240.9	759.3	1618.1	1709.1
110°	207.3	262.1	721.2	1578.4	1743.8



TEST NUMBER: P854378

CATALOG NUMBER: SQ2-WBM-100U-050D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	230.1	283.3	698.4	1511.7	1721.0
115°	263.3	314.0	675.7	1398.3	1642.3
117.5°	296.3	344.3	667.7	1292.0	1541.8
120°	318.3	363.8	665.2	1230.0	1469.9
122.5°	338.6	381.6	665.2	1175.5	1397.1
125°	368.0	408.3	666.2	1104.2	1299.6
127.5°	391.9	433.7	665.2	1050.5	1217.2
130°	407.1	450.6	665.2	1019.7	1170.6
132.5°	420.7	464.9	664.3	991.5	1130.9
135°	441.0	487.5	662.0	952.3	1071.2
137.5°	463.6	507.9	662.0	910.5	1020.7
140°	478.0	521.4	662.0	883.3	987.7
142.5°	492.4	534.1	661.1	858.4	949.6
145°	515.0	553.3	662.0	819.2	895.7
147.5°	537.6	570.1	663.3	786.8	845.6
150°	552.0	582.0	664.1	768.9	818.5
152.5°	565.5	592.2	664.9	753.4	794.0
155°	586.9	606.5	666.2	734.5	762.4
157.5°	605.5	621.4	667.5	720.6	740.0
160°	616.5	630.0	668.3	712.0	726.5
162.5°	627.5	637.6	669.2	704.3	716.3
165°	641.9	649.1	669.4	695.0	703.2
167.5°	654.2	657.9	670.7	687.7	691.2
170°	660.9	663.0	671.5	684.2	685.3
172.5°	665.2	666.4	671.5	680.8	681.0
175°	671.5	671.5	672.6	677.8	675.7
177.5°	674.5	673.6	672.8	675.3	673.6
180°	673.6	673.6	673.6	673.6	673.6



TEST NUMBER: P854378

CATALOG NUMBER: SQ2-WBM-100U-050D-940-UNV-STD-W-4

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	2.37	3.03	3.47	4.10	5.57	1.97	2.62	3.06	3.70	5.17
	3H	2.88	3.46	3.98	4.54	6.03	2.48	3.06	3.58	4.14	5.64
	4H	3.12	3.67	4.24	4.76	6.26	2.71	3.26	3.82	4.34	5.84
	6H	3.33	3.84	4.45	4.93	6.43	2.89	3.40	4.02	4.49	6.00
	8H	3.40	3.88	4.53	4.99	6.49	2.95	3.43	4.07	4.53	6.03
	12H	3.45	3.90	4.58	5.00	6.52	2.97	3.42	4.10	4.52	6.04
4H	2H	2.37	2.92	3.50	4.01	5.51	2.00	2.55	3.13	3.64	5.14
	3H	3.09	3.55	4.22	4.66	6.17	2.73	3.19	3.86	4.30	5.81
	4H	3.48	3.90	4.61	5.00	6.53	3.10	3.52	4.23	4.62	6.15
	6H	3.82	4.18	4.96	5.31	6.83	3.42	3.78	4.56	4.91	6.43
	8H	3.96	4.29	5.09	5.41	6.94	3.54	3.87	4.67	4.99	6.52
	12H	4.04	4.34	5.19	5.47	7.01	3.60	3.89	4.74	5.03	6.56
8H	4H	3.56	3.90	4.70	5.01	6.55	3.22	3.55	4.35	4.66	6.20
	6H	4.03	4.30	5.18	5.46	7.00	3.67	3.94	4.83	5.10	6.64
	8H	4.25	4.48	5.41	5.62	7.18	3.87	4.11	5.03	5.25	6.80
	12H	4.42	4.62	5.58	5.76	7.35	4.01	4.22	5.18	5.36	6.95
12H	4H	3.53	3.83	4.68	4.96	6.50	3.19	3.49	4.34	4.62	6.16
	6H	4.05	4.29	5.21	5.43	6.98	3.70	3.94	4.86	5.08	6.64
	8H	4.29	4.50	5.45	5.64	7.23	3.93	4.14	5.09	5.28	6.87