

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: P854321

Luminaire Tested: SQ2-PW1-150U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854321
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-150U-075D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

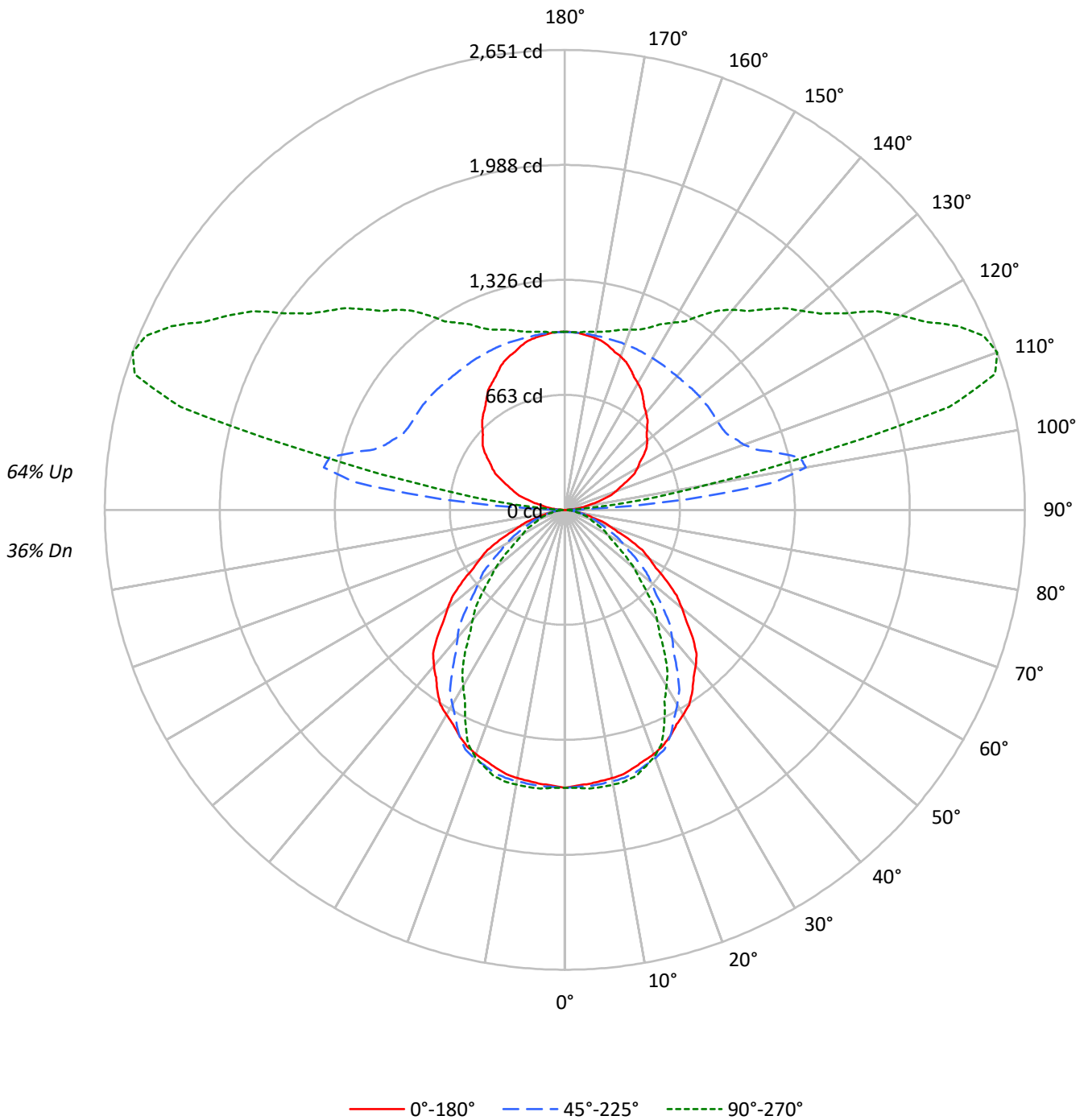
Lumens per Lamp: N/A
Luminaire Lumens: 9886.6 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 83.3
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		0
RCR																			
0	104	104	104	104	94	94	94	94	76	76	76	59	59	59	43	43	43		36
1	95	91	87	84	86	83	80	77	67	65	63	52	51	50	39	38	37		31
2	87	80	74	69	78	73	68	64	59	56	53	46	44	42	35	33	32		27
3	79	71	64	58	72	64	58	54	52	48	45	41	38	36	31	29	28		23
4	73	63	55	49	66	57	51	46	47	42	38	37	34	31	28	26	24		20
5	67	56	48	42	60	51	44	39	42	37	33	33	30	27	25	23	21		18
6	62	50	42	37	56	46	39	34	38	33	29	30	27	24	23	21	19		16
7	57	45	38	32	52	42	35	30	34	29	26	28	24	21	21	19	17		14
8	53	41	34	29	48	38	31	27	31	26	23	25	22	19	20	17	15		13
9	49	38	30	25	45	34	28	24	29	24	20	23	20	17	18	16	14		12
10	46	34	27	23	42	32	25	21	26	22	18	21	18	15	17	14	13		11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25869	25869	25869
5°	25695	25893	26141
10°	25743	26043	26368
15°	25737	26220	26527
20°	25747	26192	26008
25°	25607	25634	24166
30°	25434	24153	21848
35°	25233	22227	19730
40°	24732	20261	17431
45°	23763	18224	15225
50°	22117	16289	13031
55°	20231	14390	10567
60°	18132	12516	9116
65°	15855	10785	8103
70°	12968	9578	7345
75°	10087	8284	6756
80°	7522	7094	5960
85°	5094	5372	3390

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 23763 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.6	1.5
10°-20°	442.0	4.5
20°-30°	650.5	6.6
30°-40°	711.2	7.2
40°-50°	638.0	6.5
50°-60°	476.0	4.8
60°-70°	300.8	3.0
70°-80°	149.0	1.5
80°-90°	36.0	0.4
90°-100°	390.8	4.0
100°-110°	1279.7	12.9
110°-120°	1265.1	12.8
120°-130°	1034.2	10.5
130°-140°	843.9	8.5
140°-150°	656.8	6.6
150°-160°	472.9	4.8
160°-170°	289.3	2.9
170°-180°	97.8	1.0
0°-30°	1245.1	12.6
0°-40°	1956.4	19.8
0°-60°	3070.4	31.1
0°-90°	3556.2	36.0
90°-120°	2935.6	29.7
90°-150°	5470.5	55.3
90°-180°	6330.0	64.0
0°-180°	9886.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1602	1602	1602	1602	1602	
5°	1585	1611	1598	1600	1613	151
15°	1540	1570	1569	1580	1587	435
25°	1437	1469	1439	1379	1356	662
35°	1280	1267	1128	1029	1001	798
45°	1041	957	798	698	667	798
55°	719	650	511	401	375	642
65°	415	381	282	227	212	411
75°	162	174	133	111	108	178
85°	28	35	29	20	18	35
90°	1	3	8	7	8	4
95°	55	159	710	253	164	62
105°	222	317	1270	2413	2293	234
115°	401	479	1032	2132	2504	396
125°	558	622	1017	1682	1975	496
135°	672	743	1009	1450	1635	520
145°	785	843	1007	1248	1367	492
155°	895	925	1013	1116	1160	412
165°	977	986	1017	1056	1068	275
175°	1021	1021	1022	1030	1028	97
180°	1026	1026	1026	1026	1026	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1602.2	1602.2	1602.2	1602.2	1602.2
2.5°	1591.2	1611.5	1598.6	1599.9	1603.4
5°	1585.4	1610.8	1597.6	1599.5	1612.9
7.5°	1577.5	1603.2	1593.4	1598.8	1612.0
10°	1570.2	1597.0	1588.5	1596.4	1608.3
12.5°	1560.4	1588.5	1582.4	1591.5	1603.4
15°	1539.7	1569.5	1568.6	1579.5	1587.0
17.5°	1515.5	1545.4	1543.9	1546.8	1550.3
20°	1498.5	1528.3	1524.4	1513.7	1513.7
22.5°	1474.0	1506.3	1496.3	1467.1	1457.6
25°	1437.4	1468.7	1438.9	1378.9	1356.5
27.5°	1394.7	1420.1	1360.2	1275.0	1243.9
30°	1364.2	1383.6	1295.5	1201.7	1171.9
32.5°	1332.4	1339.9	1229.6	1132.1	1099.9
35°	1280.2	1266.8	1127.7	1029.4	1001.0
37.5°	1218.6	1178.6	1029.7	926.7	895.4
40°	1173.4	1116.7	961.3	858.4	827.0
42.5°	1123.4	1052.4	896.6	793.7	761.1
45°	1040.7	957.1	798.1	698.2	666.8
47.5°	947.6	864.6	705.9	609.1	582.3
50°	880.5	799.9	648.5	551.6	518.8
52.5°	812.1	739.9	592.4	492.8	448.0
55°	718.7	650.1	511.2	400.7	375.4
57.5°	622.6	563.2	437.6	337.4	316.5
60°	561.5	509.3	387.6	303.2	282.3
62.5°	502.9	456.7	338.8	271.5	254.2
65°	415.0	380.7	282.3	227.0	212.1
67.5°	329.6	310.5	234.7	186.2	176.4
70°	274.7	268.7	202.9	163.1	155.6
72.5°	227.1	229.4	172.4	141.2	136.1
75°	161.7	173.7	132.8	111.3	108.3
77.5°	110.2	128.1	98.3	82.3	80.0
80°	80.9	98.8	76.3	64.1	64.1
82.5°	56.5	70.8	54.3	48.2	48.2
85°	27.5	34.9	29.0	19.8	18.3
87.5°	7.5	11.5	6.6	5.1	5.3
90°	1.1	3.1	8.4	7.4	8.4
92.5°	17.9	65.3	200.7	65.3	52.3
95°	54.8	158.9	710.5	253.1	164.4
97.5°	99.5	209.6	1219.0	737.4	457.1
100°	130.7	235.8	1410.4	1259.5	834.9
102.5°	166.1	268.8	1389.3	1855.9	1438.7
105°	222.4	317.2	1270.2	2413.3	2292.7
107.5°	277.9	364.9	1154.0	2465.4	2598.0
110°	314.1	398.6	1098.4	2404.8	2651.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	348.7	430.7	1064.7	2299.2	2614.8
115°	400.6	478.9	1032.0	2132.5	2503.5
117.5°	451.0	524.1	1019.5	1968.6	2345.4
120°	483.8	552.9	1016.2	1873.1	2240.0
122.5°	513.4	580.8	1016.2	1790.7	2131.2
125°	557.6	621.5	1017.2	1681.7	1975.4
127.5°	595.2	660.3	1016.0	1601.3	1856.9
130°	618.8	684.7	1015.1	1552.7	1783.6
132.5°	639.8	707.5	1012.6	1510.9	1720.3
135°	671.5	742.6	1008.8	1450.4	1634.9
137.5°	704.8	775.3	1006.5	1387.4	1554.2
140°	728.4	796.4	1005.6	1347.6	1505.3
142.5°	752.0	815.9	1005.6	1305.1	1447.9
145°	785.3	843.0	1006.7	1247.6	1367.2
147.5°	820.3	868.3	1008.2	1197.6	1287.9
150°	842.2	884.5	1009.8	1168.6	1244.9
152.5°	864.2	901.5	1010.7	1144.7	1207.8
155°	894.9	924.8	1013.0	1116.2	1159.5
157.5°	922.6	944.2	1015.3	1093.8	1125.2
160°	940.3	957.8	1016.2	1081.0	1105.8
162.5°	955.5	969.7	1016.2	1070.8	1088.9
165°	977.2	986.4	1017.2	1056.5	1067.8
167.5°	995.5	1000.0	1018.5	1045.4	1051.6
170°	1005.6	1007.7	1019.3	1039.4	1041.5
172.5°	1013.2	1014.5	1021.9	1035.2	1035.6
175°	1021.4	1021.4	1022.5	1029.8	1027.8
177.5°	1025.7	1024.8	1024.0	1029.0	1025.7
180°	1025.7	1025.7	1025.7	1025.7	1025.7



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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	16.88	17.61	17.96	18.68	20.14	13.37	14.09	14.45	15.17	16.63
	3H	18.20	18.84	19.28	19.92	21.40	14.57	15.21	15.65	16.29	17.77
	4H	18.56	19.18	19.66	20.26	21.74	15.01	15.62	16.10	16.70	18.19
	6H	18.76	19.32	19.86	20.41	21.90	15.32	15.88	16.42	16.96	18.46
	8H	18.79	19.32	19.90	20.42	21.92	15.39	15.92	16.50	17.02	18.51
	12H	18.78	19.29	19.89	20.38	21.90	15.39	15.90	16.51	17.00	18.51
4H	2H	16.97	17.58	18.07	18.66	20.15	14.04	14.65	15.14	15.73	17.22
	3H	18.50	19.01	19.61	20.12	21.62	15.41	15.92	16.52	17.03	18.53
	4H	19.01	19.47	20.12	20.57	22.09	15.95	16.42	17.07	17.52	19.04
	6H	19.33	19.73	20.45	20.85	22.36	16.35	16.75	17.47	17.87	19.38
	8H	19.41	19.78	20.53	20.89	22.42	16.45	16.82	17.57	17.94	19.47
	12H	19.42	19.75	20.55	20.88	22.41	16.47	16.80	17.60	17.93	19.46
8H	4H	19.04	19.41	20.16	20.52	22.05	16.27	16.64	17.39	17.76	19.28
	6H	19.47	19.77	20.61	20.93	22.45	16.77	17.08	17.91	18.23	19.76
	8H	19.61	19.88	20.76	21.02	22.56	16.93	17.20	18.08	18.34	19.88
	12H	19.67	19.91	20.82	21.04	22.62	16.99	17.22	18.14	18.36	19.94
12H	4H	18.99	19.32	20.12	20.45	21.98	16.28	16.62	17.42	17.74	19.27
	6H	19.46	19.73	20.60	20.86	22.41	16.84	17.10	17.98	18.24	19.78
	8H	19.61	19.85	20.76	20.98	22.56	17.02	17.25	18.17	18.38	19.96