

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: P854237

Luminaire Tested: SQ2-PR1-150U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854237
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-150U-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

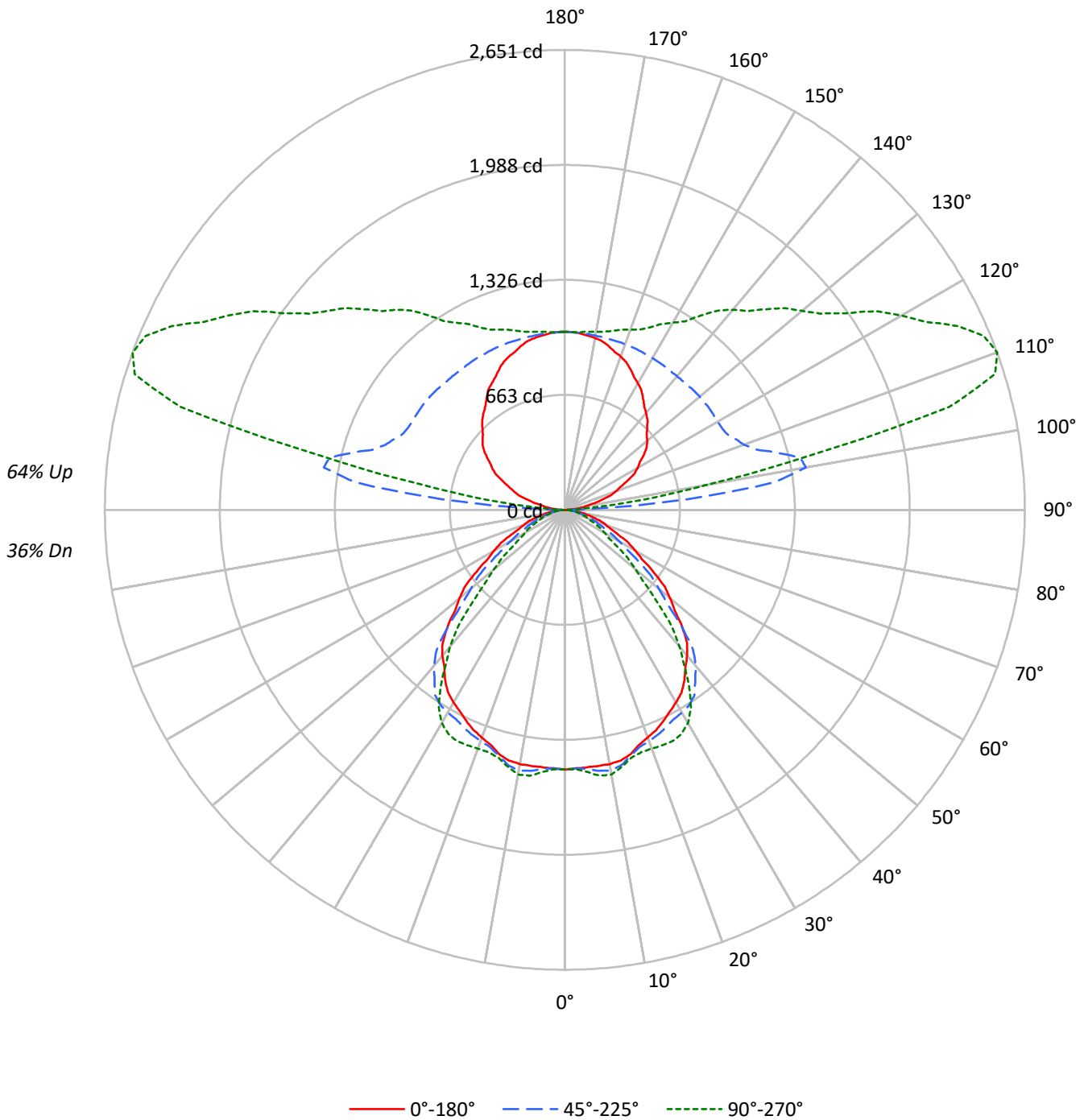
Lumens per Lamp: N/A
Luminaire Lumens: 9932.6 lumens
Efficiency: N/A
Efficacy: 119.2 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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	44	44	44	36
1	95	91	87	84	86	83	80	77	67	65	63	52	51	50	39	38	38	31
2	87	80	74	69	79	73	68	64	59	56	53	47	44	42	35	34	32	27
3	80	71	64	58	72	64	58	54	53	48	45	42	39	36	31	30	28	23
4	73	63	55	50	66	57	51	46	47	42	38	37	34	31	28	26	24	20
5	67	56	48	43	61	51	44	39	42	37	33	34	30	27	26	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	37	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°	24169	24169	24169
5°	24138	24285	24584
10°	24392	25017	25392
15°	24384	24511	24715
20°	23990	24357	25170
25°	23922	24602	26206
30°	23897	25148	26457
35°	23670	25685	24632
40°	23123	24732	21678
45°	21882	21706	17141
50°	19891	17746	13300
55°	17481	14604	10351
60°	15129	11677	8525
65°	13058	9677	7461
70°	11740	8573	6628
75°	10755	7424	6095
80°	9363	5960	5960
85°	6780	5372	2834

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 23653 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.6	1.5
10°-20°	418.5	4.2
20°-30°	646.9	6.5
30°-40°	778.0	7.8
40°-50°	698.6	7.0
50°-60°	468.0	4.7
60°-70°	272.2	2.7
70°-80°	139.8	1.4
80°-90°	35.6	0.4
90°-100°	390.8	3.9
100°-110°	1279.7	12.9
110°-120°	1265.1	12.7
120°-130°	1034.2	10.4
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°	1209.9	12.2
0°-40°	1987.9	20.0
0°-60°	3154.5	31.8
0°-90°	3602.2	36.3
90°-120°	2935.6	29.6
90°-150°	5470.5	55.1
90°-180°	6330.0	63.7
0°-180°	9932.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1497	1497	1497	1497	1497	
5°	1489	1515	1498	1502	1517	142
15°	1459	1518	1466	1471	1479	410
25°	1343	1396	1381	1432	1471	619
35°	1201	1211	1303	1278	1250	749
45°	958	1036	951	802	751	733
55°	621	645	519	401	368	558
65°	342	349	253	206	195	346
75°	172	168	119	101	98	183
85°	37	29	29	20	15	45
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°	1496.9	1496.9	1496.9	1496.9	1496.9
2.5°	1490.8	1508.7	1492.0	1493.3	1496.9
5°	1489.3	1514.7	1498.4	1501.8	1516.8
7.5°	1489.0	1525.1	1517.4	1526.7	1546.4
10°	1487.8	1531.0	1525.9	1527.9	1548.8
12.5°	1480.4	1530.9	1507.6	1505.7	1517.1
15°	1458.8	1518.5	1466.4	1471.1	1478.6
17.5°	1420.6	1483.0	1433.4	1450.3	1464.9
20°	1396.2	1457.4	1417.6	1439.5	1464.9
22.5°	1374.2	1435.4	1402.9	1433.6	1468.5
25°	1342.8	1396.5	1381.0	1432.2	1471.0
27.5°	1309.8	1341.5	1359.9	1428.6	1455.7
30°	1281.8	1302.7	1348.9	1408.7	1419.1
32.5°	1251.2	1263.8	1334.3	1365.4	1352.0
35°	1200.9	1211.3	1303.1	1278.1	1249.7
37.5°	1141.1	1162.6	1233.2	1161.1	1128.6
40°	1097.1	1132.9	1173.4	1065.8	1028.5
42.5°	1043.4	1100.7	1094.1	956.9	911.3
45°	958.3	1035.9	950.6	801.5	750.7
47.5°	857.9	937.5	798.1	664.8	617.4
50°	791.9	856.1	706.5	581.7	529.5
52.5°	724.8	771.1	628.4	503.7	456.2
55°	621.0	644.9	518.8	400.6	367.7
57.5°	525.8	541.0	423.9	323.6	299.4
60°	468.5	478.9	361.6	283.4	264.0
62.5°	416.0	424.0	311.6	249.3	234.7
65°	341.8	349.3	253.3	205.8	195.3
67.5°	282.9	286.8	208.4	171.0	161.1
70°	248.7	250.2	181.6	147.8	140.4
72.5°	218.2	216.1	155.9	128.4	123.3
75°	172.4	168.0	119.0	100.6	97.7
77.5°	128.8	124.0	83.6	77.5	77.5
80°	100.7	94.7	64.1	64.1	64.1
82.5°	75.1	66.7	49.4	49.4	48.2
85°	36.6	29.2	29.0	19.7	15.3
87.5°	10.0	10.4	5.3	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	16.41	17.13	17.48	18.20	19.66	13.13	13.86	14.21	14.93	16.38
	3H	17.63	18.28	18.71	19.36	20.83	14.19	14.83	15.27	15.91	17.39
	4H	18.08	18.69	19.17	19.77	21.25	14.58	15.19	15.68	16.27	17.76
	6H	18.39	18.95	19.49	20.03	21.53	14.91	15.47	16.01	16.55	18.05
	8H	18.46	19.00	19.57	20.10	21.59	14.99	15.52	16.09	16.62	18.11
	12H	18.49	19.00	19.60	20.09	21.60	14.99	15.50	16.10	16.59	18.10
4H	2H	16.47	17.08	17.57	18.16	19.64	13.68	14.30	14.79	15.38	16.86
	3H	17.93	18.44	19.04	19.54	21.04	14.94	15.45	16.05	16.55	18.05
	4H	18.52	18.98	19.63	20.08	21.60	15.44	15.90	16.55	17.00	18.52
	6H	18.96	19.36	20.08	20.48	21.99	15.87	16.27	16.99	17.39	18.89
	8H	19.09	19.46	20.21	20.58	22.10	15.99	16.36	17.11	17.47	19.00
	12H	19.14	19.48	20.28	20.60	22.13	16.00	16.34	17.14	17.46	18.99
8H	4H	18.53	18.91	19.65	20.02	21.54	15.74	16.11	16.85	17.22	18.74
	6H	19.08	19.39	20.22	20.54	22.06	16.27	16.57	17.41	17.73	19.25
	8H	19.28	19.54	20.42	20.68	22.22	16.45	16.72	17.60	17.85	19.39
	12H	19.38	19.61	20.52	20.74	22.32	16.51	16.74	17.66	17.88	19.45
12H	4H	18.49	18.82	19.62	19.95	21.48	15.75	16.08	16.88	17.21	18.74
	6H	19.06	19.33	20.21	20.47	22.01	16.33	16.59	17.47	17.73	19.27
	8H	19.27	19.51	20.42	20.64	22.22	16.53	16.76	17.68	17.90	19.47