

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: P854069

Luminaire Tested: SQ2-PH1-150U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854069
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-150U-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

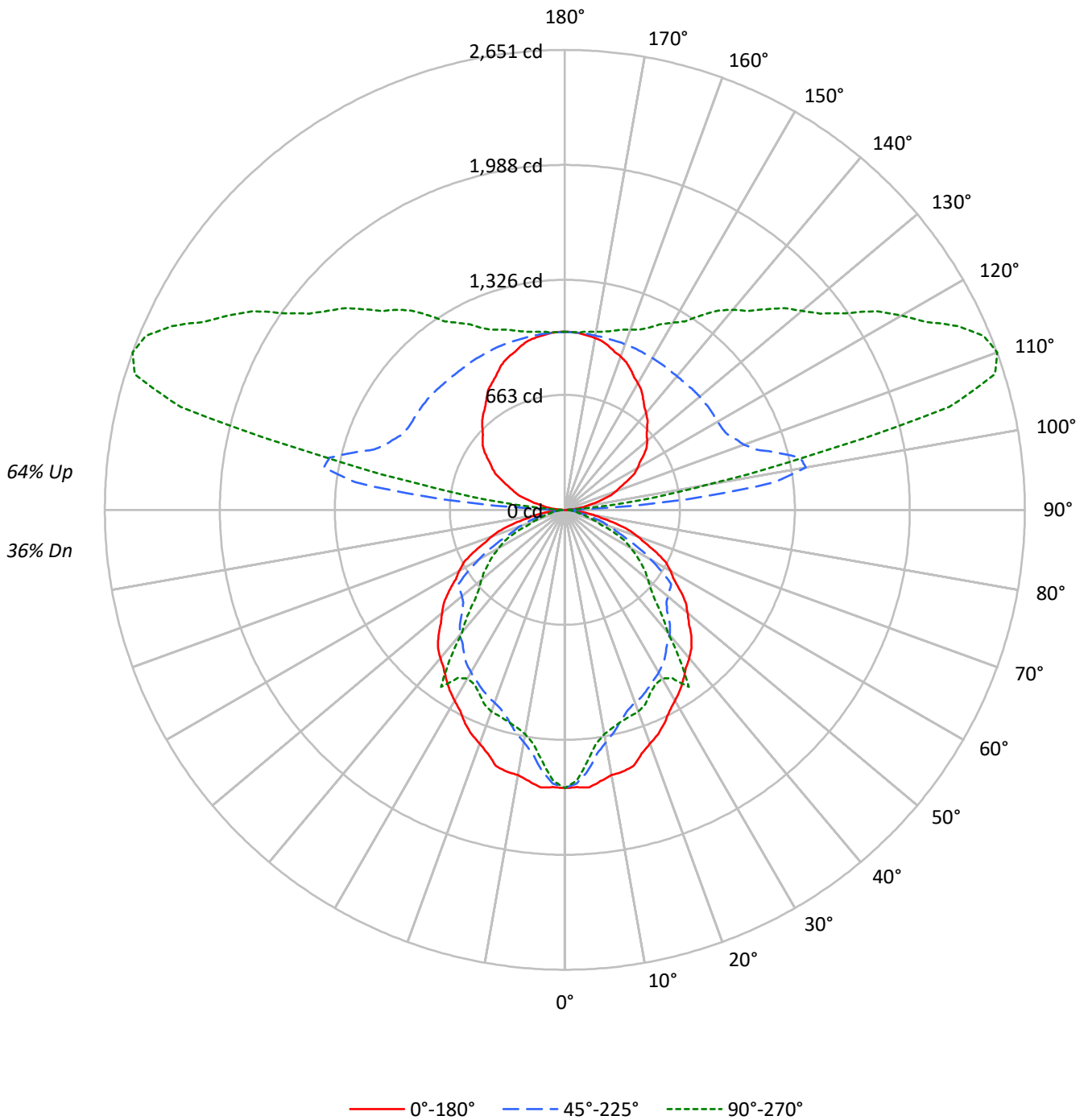
Lumens per Lamp: N/A
Luminaire Lumens: 9878.9 lumens
Efficiency: N/A
Efficacy: 118.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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

TEST NUMBER: P854069

CATALOG NUMBER: SQ2-PH1-150U-075D-940-UNV-STD-W-4

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	82	79	76	66	64	62	52	50	49	38	38	37	31
2	86	79	73	68	78	72	67	63	58	55	52	46	43	41	34	32	31	26
3	79	70	63	57	71	63	57	52	51	47	43	40	37	35	30	28	27	22
4	72	62	54	48	65	56	49	44	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	32	29	26	24	22	20	16
6	61	49	41	36	55	45	38	33	37	32	28	29	25	23	22	20	18	14
7	56	44	36	31	51	40	34	29	33	28	24	26	23	20	20	18	16	13
8	52	40	33	27	47	37	30	25	30	25	22	24	20	18	18	16	14	11
9	48	36	29	24	44	33	27	23	28	23	19	22	18	16	17	14	13	10
10	45	33	26	22	41	31	24	20	25	21	17	20	17	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25893	25893	25893
5°	26042	24485	23668
10°	25443	22291	21515
15°	25558	20966	21093
20°	24646	20319	21263
25°	24195	20225	20769
30°	23670	20171	20939
35°	23489	19941	24541
40°	23509	19812	19458
45°	23519	19059	16760
50°	23189	19432	15714
55°	22894	21090	15077
60°	22666	18477	14141
65°	22269	14984	12302
70°	21036	12751	8790
75°	18752	9613	6662
80°	15323	6239	6239
85°	9615	5650	4242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 23519 cd/sqm



TEST NUMBER: P854069

CATALOG NUMBER: SQ2-PH1-150U-075D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.1	1.4
10°-20°	371.2	3.8
20°-30°	544.3	5.5
30°-40°	659.1	6.7
40°-50°	648.2	6.6
50°-60°	564.2	5.7
60°-70°	392.3	4.0
70°-80°	186.0	1.9
80°-90°	42.1	0.4
90°-100°	390.8	4.0
100°-110°	1279.7	13.0
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°	1056.6	10.7
0°-40°	1715.7	17.4
0°-60°	2928.1	29.6
0°-90°	3548.4	35.9
90°-120°	2935.6	29.7
90°-150°	5470.5	55.4
90°-180°	6330.0	64.1
0°-180°	9878.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1604	1604	1604	1604	1604	
5°	1607	1605	1511	1463	1460	151
15°	1529	1362	1254	1246	1262	426
25°	1358	1155	1135	1170	1166	625
35°	1192	964	1012	1099	1245	746
45°	1030	763	835	864	734	792
55°	813	594	749	540	536	727
65°	583	408	392	322	322	573
75°	301	208	154	110	107	319
85°	52	34	30	24	23	70
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	



TEST NUMBER: P854069

CATALOG NUMBER: SQ2-PH1-150U-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1603.7	1603.7	1603.7	1603.7	1603.7
2.5°	1600.1	1616.8	1579.3	1564.6	1562.2
5°	1606.8	1605.3	1510.7	1463.3	1460.3
7.5°	1577.5	1531.2	1418.2	1365.9	1363.6
10°	1551.9	1481.7	1359.6	1312.3	1312.3
12.5°	1545.7	1435.0	1312.0	1277.0	1284.2
15°	1529.0	1361.9	1254.3	1245.5	1261.9
17.5°	1473.4	1293.5	1209.4	1229.4	1248.5
20°	1434.4	1256.8	1182.6	1219.6	1237.5
22.5°	1401.4	1221.5	1163.1	1203.6	1213.1
25°	1358.1	1155.1	1135.3	1170.3	1165.8
27.5°	1306.2	1094.3	1107.5	1128.9	1131.6
30°	1269.6	1057.7	1081.9	1103.7	1123.1
32.5°	1234.2	1015.1	1053.8	1105.5	1149.9
35°	1191.7	963.5	1011.7	1098.9	1245.1
37.5°	1147.2	902.5	969.3	1042.6	1089.2
40°	1115.4	858.8	940.0	1030.6	923.2
42.5°	1081.3	824.6	896.0	1013.0	831.6
45°	1030.0	762.9	834.7	863.8	734.0
47.5°	969.6	715.0	793.2	720.3	669.6
50°	923.2	683.0	773.6	658.4	625.6
52.5°	878.0	649.7	760.2	607.4	585.3
55°	813.3	594.0	749.2	540.1	535.6
57.5°	744.6	537.3	662.6	481.4	489.2
60°	701.9	500.5	572.2	446.9	437.9
62.5°	656.8	464.9	488.0	402.9	394.0
65°	582.9	408.3	392.2	322.0	322.0
67.5°	501.7	349.5	317.7	263.5	227.7
70°	445.6	311.3	270.1	210.0	186.2
72.5°	385.8	270.6	221.3	172.1	144.7
75°	300.6	208.1	154.1	109.8	106.8
77.5°	217.3	149.9	103.8	81.5	81.8
80°	164.8	114.1	67.1	65.6	67.1
82.5°	116.0	78.4	50.0	52.2	52.5
85°	51.9	34.0	30.5	24.4	22.9
87.5°	11.2	10.4	7.8	7.6	7.8
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



TEST NUMBER: P854069

CATALOG NUMBER: SQ2-PH1-150U-075D-940-UNV-STD-W-4

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	17.17	17.91	18.24	18.98	20.44	15.84	16.58	16.91	17.66	19.12
	3H	19.18	19.85	20.26	20.93	22.41	16.87	17.53	17.95	18.61	20.09
	4H	19.91	20.54	21.00	21.62	23.11	17.07	17.70	18.17	18.79	20.27
	6H	20.39	20.97	21.49	22.05	23.55	17.21	17.79	18.31	18.88	20.37
	8H	20.51	21.06	21.61	22.16	23.65	17.24	17.79	18.34	18.89	20.38
	12H	20.55	21.07	21.66	22.17	23.68	17.23	17.76	18.34	18.85	20.37
4H	2H	17.53	18.16	18.63	19.24	20.72	16.47	17.10	17.57	18.18	19.66
	3H	19.62	20.15	20.73	21.26	22.75	17.64	18.16	18.74	19.27	20.77
	4H	20.43	20.91	21.54	22.01	23.53	17.91	18.39	19.02	19.49	21.00
	6H	21.01	21.42	22.13	22.55	24.06	18.11	18.52	19.22	19.64	21.15
	8H	21.18	21.56	22.30	22.68	24.20	18.16	18.55	19.28	19.66	21.19
	12H	21.24	21.59	22.38	22.72	24.25	18.16	18.51	19.30	19.64	21.17
8H	4H	20.44	20.83	21.56	21.94	23.47	18.11	18.50	19.23	19.61	21.14
	6H	21.09	21.41	22.23	22.56	24.08	18.38	18.70	19.52	19.85	21.38
	8H	21.31	21.59	22.46	22.73	24.27	18.48	18.76	19.63	19.89	21.44
	12H	21.42	21.66	22.57	22.80	24.38	18.52	18.76	19.67	19.90	21.48
12H	4H	20.39	20.74	21.52	21.86	23.39	18.10	18.45	19.24	19.58	21.11
	6H	21.06	21.34	22.21	22.47	24.02	18.41	18.69	19.55	19.82	21.37
	8H	21.29	21.53	22.44	22.66	24.24	18.52	18.76	19.67	19.89	21.47