

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: P854067

Luminaire Tested: SQ2-PH1-150U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854067
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-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

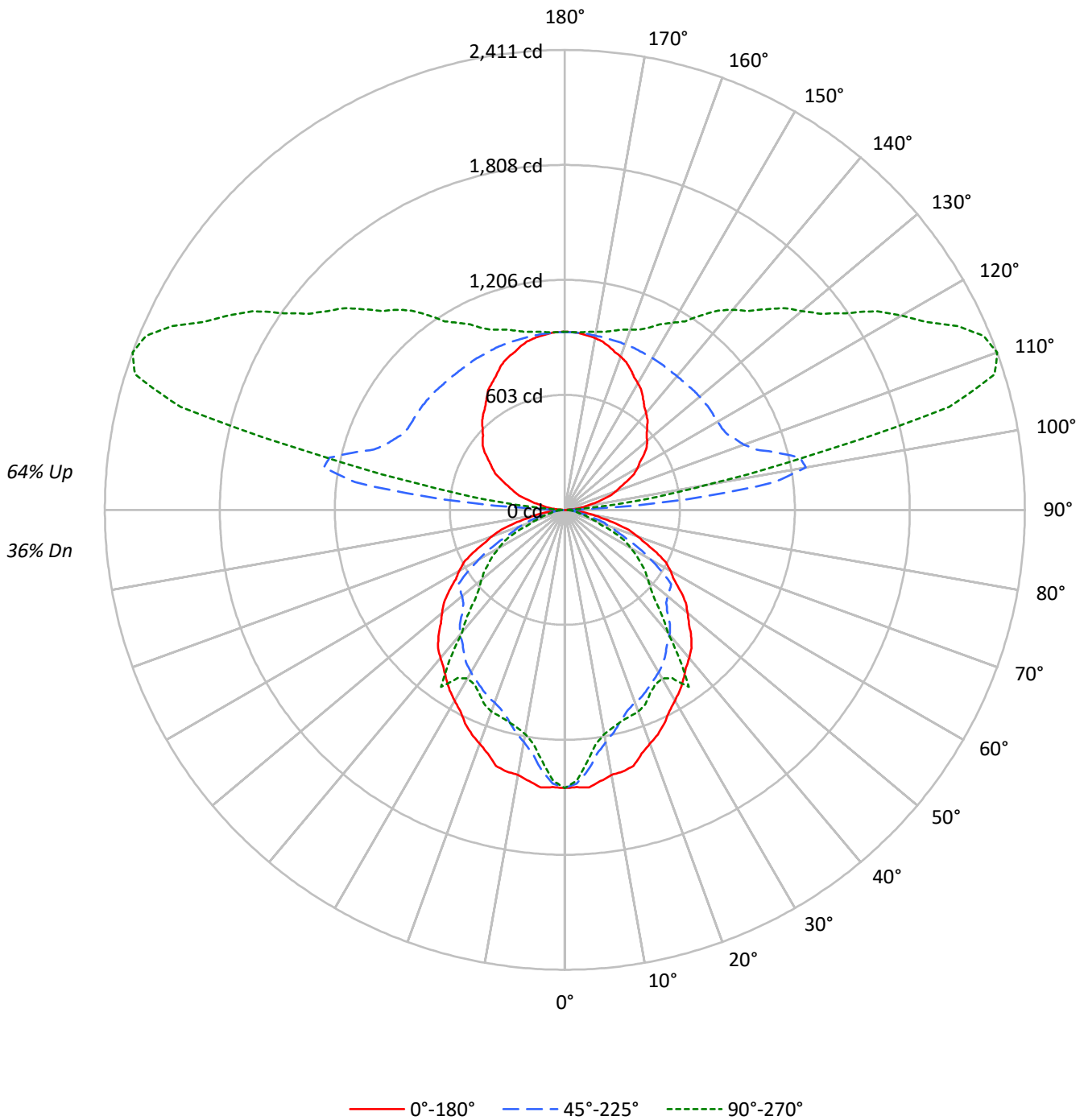
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8982.6 lumens
Efficiency: N/A
Efficacy: 107.8 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: P854067
CATALOG NUMBER: SQ2-PH1-150U-075D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854067

CATALOG NUMBER: SQ2-PH1-150U-075D-930-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	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°	23544	23544	23544
5°	23679	22263	21520
10°	23135	20267	19562
15°	23238	19064	19179
20°	22409	18476	19333
25°	21998	18390	18884
30°	21522	18340	19039
35°	21358	18132	22316
40°	21376	18014	17692
45°	21384	17328	15239
50°	21084	17668	14290
55°	20816	19175	13709
60°	20609	16801	12859
65°	20248	13624	11186
70°	19124	11594	7992
75°	17049	8740	6057
80°	13928	5672	5672
85°	8744	5132	3853

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21384 cd/sqm



TEST NUMBER: P854067

CATALOG NUMBER: SQ2-PH1-150U-075D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.3	1.4
10°-20°	337.5	3.8
20°-30°	494.9	5.5
30°-40°	599.3	6.7
40°-50°	589.4	6.6
50°-60°	513.0	5.7
60°-70°	356.7	4.0
70°-80°	169.1	1.9
80°-90°	38.3	0.4
90°-100°	355.3	4.0
100°-110°	1163.6	13.0
110°-120°	1150.4	12.8
120°-130°	940.4	10.5
130°-140°	767.4	8.5
140°-150°	597.2	6.6
150°-160°	430.0	4.8
160°-170°	263.1	2.9
170°-180°	88.9	1.0
0°-30°	960.7	10.7
0°-40°	1560.0	17.4
0°-60°	2662.4	29.6
0°-90°	3226.5	35.9
90°-120°	2669.3	29.7
90°-150°	4974.2	55.4
90°-180°	5756.0	64.1
0°-180°	8982.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1458	1458	1458	1458	1458	
5°	1461	1460	1374	1330	1328	137
15°	1390	1238	1140	1132	1147	388
25°	1235	1050	1032	1064	1060	568
35°	1084	876	920	999	1132	679
45°	936	694	759	785	667	720
55°	740	540	681	491	487	661
65°	530	371	357	293	293	521
75°	273	189	140	100	97	290
85°	47	31	28	22	21	63
90°	1	3	8	7	8	4
95°	50	144	646	230	150	57
105°	202	288	1155	2194	2085	213
115°	364	435	938	1939	2276	360
125°	507	565	925	1529	1796	451
135°	611	675	917	1319	1487	472
145°	714	766	915	1134	1243	447
155°	814	841	921	1015	1054	375
165°	888	897	925	961	971	250
175°	929	929	930	936	934	88
180°	933	933	933	933	933	



TEST NUMBER: P854067

CATALOG NUMBER: SQ2-PH1-150U-075D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1458.2	1458.2	1458.2	1458.2	1458.2
2.5°	1454.9	1470.1	1436.0	1422.7	1420.5
5°	1461.0	1459.6	1373.6	1330.5	1327.8
7.5°	1434.4	1392.3	1289.5	1242.0	1239.8
10°	1411.1	1347.3	1236.2	1193.2	1193.2
12.5°	1405.5	1304.8	1192.9	1161.2	1167.7
15°	1390.2	1238.3	1140.5	1132.5	1147.4
17.5°	1339.7	1176.1	1099.7	1117.9	1135.2
20°	1304.2	1142.8	1075.3	1109.0	1125.2
22.5°	1274.3	1110.6	1057.5	1094.4	1103.0
25°	1234.8	1050.3	1032.3	1064.1	1060.0
27.5°	1187.7	995.0	1007.0	1026.5	1028.9
30°	1154.4	961.7	983.7	1003.5	1021.2
32.5°	1122.2	923.0	958.2	1005.2	1045.6
35°	1083.6	876.0	919.9	999.2	1132.2
37.5°	1043.1	820.6	881.3	948.0	990.4
40°	1014.2	780.9	854.7	937.1	839.4
42.5°	983.2	749.8	814.7	921.1	756.2
45°	936.5	693.7	758.9	785.4	667.4
47.5°	881.6	650.2	721.2	654.9	608.8
50°	839.4	621.0	703.4	598.7	568.9
52.5°	798.4	590.8	691.2	552.3	532.2
55°	739.5	540.1	681.2	491.1	487.0
57.5°	677.1	488.5	602.4	437.8	444.8
60°	638.2	455.1	520.3	406.3	398.2
62.5°	597.2	422.7	443.7	366.4	358.2
65°	530.0	371.3	356.6	292.8	292.8
67.5°	456.2	317.8	288.9	239.6	207.0
70°	405.1	283.0	245.6	191.0	169.3
72.5°	350.8	246.0	201.2	156.5	131.5
75°	273.3	189.2	140.1	99.8	97.1
77.5°	197.6	136.3	94.3	74.1	74.4
80°	149.8	103.7	61.0	59.7	61.0
82.5°	105.4	71.3	45.5	47.5	47.7
85°	47.2	30.9	27.7	22.2	20.8
87.5°	10.2	9.5	7.1	6.9	7.1
90°	1.0	2.8	7.7	6.7	7.7
92.5°	16.3	59.4	182.5	59.3	47.5
95°	49.8	144.5	646.0	230.1	149.5
97.5°	90.5	190.6	1108.4	670.5	415.6
100°	118.9	214.4	1282.4	1145.2	759.1
102.5°	151.1	244.4	1263.3	1687.5	1308.1
105°	202.2	288.5	1155.0	2194.3	2084.7
107.5°	252.7	331.8	1049.3	2241.7	2362.3
110°	285.6	362.5	998.7	2186.6	2410.6



TEST NUMBER: P854067

CATALOG NUMBER: SQ2-PH1-150U-075D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	317.1	391.7	968.1	2090.6	2377.6
115°	364.2	435.4	938.4	1939.0	2276.4
117.5°	410.0	476.6	927.0	1790.0	2132.6
120°	439.9	502.7	924.0	1703.1	2036.8
122.5°	466.8	528.1	924.0	1628.2	1937.9
125°	507.0	565.1	924.9	1529.1	1796.2
127.5°	541.2	600.4	923.8	1456.0	1688.5
130°	562.6	622.6	923.0	1411.8	1621.7
132.5°	581.8	643.3	920.7	1373.8	1564.2
135°	610.6	675.2	917.3	1318.8	1486.6
137.5°	640.8	704.9	915.2	1261.5	1413.2
140°	662.3	724.2	914.4	1225.3	1368.7
142.5°	683.8	741.9	914.4	1186.7	1316.6
145°	714.1	766.5	915.3	1134.4	1243.1
147.5°	745.9	789.6	916.7	1089.0	1171.1
150°	765.8	804.2	918.2	1062.6	1132.0
152.5°	785.8	819.7	919.0	1040.9	1098.2
155°	813.7	840.9	921.1	1015.0	1054.3
157.5°	838.9	858.5	923.2	994.6	1023.1
160°	855.0	870.9	924.0	983.0	1005.4
162.5°	868.8	881.7	924.0	973.6	990.1
165°	888.5	896.9	924.9	960.6	970.9
167.5°	905.2	909.3	926.1	950.6	956.2
170°	914.4	916.3	926.8	945.1	947.0
172.5°	921.3	922.4	929.1	941.2	941.6
175°	928.8	928.8	929.7	936.4	934.5
177.5°	932.6	931.8	931.1	935.6	932.6
180°	932.6	932.6	932.6	932.6	932.6

TEST NUMBER: P854067

CATALOG NUMBER: SQ2-PH1-150U-075D-930-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	16.84	17.58	17.91	18.65	20.11	15.51	16.25	16.58	17.33	18.78
	3H	18.85	19.52	19.93	20.60	22.08	16.54	17.20	17.62	18.28	19.76
	4H	19.58	20.21	20.67	21.29	22.77	16.74	17.37	17.83	18.46	19.94
	6H	20.06	20.64	21.16	21.72	23.22	16.88	17.46	17.98	18.55	20.04
	8H	20.18	20.73	21.28	21.83	23.32	16.91	17.46	18.01	18.56	20.05
	12H	20.22	20.74	21.33	21.84	23.35	16.90	17.43	18.01	18.52	20.03
4H	2H	17.20	17.83	18.30	18.91	20.39	16.14	16.77	17.24	17.85	19.33
	3H	19.29	19.82	20.40	20.93	22.42	17.31	17.83	18.41	18.94	20.44
	4H	20.10	20.58	21.21	21.68	23.20	17.58	18.06	18.69	19.16	20.67
	6H	20.68	21.09	21.80	22.21	23.72	17.78	18.19	18.89	19.31	20.82
	8H	20.85	21.23	21.96	22.35	23.87	17.83	18.22	18.95	19.33	20.86
	12H	20.91	21.26	22.04	22.38	23.91	17.83	18.18	18.97	19.31	20.84
8H	4H	20.11	20.50	21.23	21.61	23.13	17.78	18.17	18.90	19.28	20.81
	6H	20.76	21.07	21.90	22.23	23.75	18.05	18.37	19.19	19.52	21.04
	8H	20.98	21.26	22.13	22.39	23.94	18.15	18.43	19.30	19.56	21.11
	12H	21.09	21.33	22.24	22.47	24.05	18.19	18.43	19.34	19.57	21.14
12H	4H	20.06	20.40	21.19	21.53	23.06	17.77	18.12	18.91	19.25	20.78
	6H	20.73	21.01	21.87	22.14	23.69	18.08	18.36	19.22	19.49	21.04
	8H	20.96	21.20	22.11	22.33	23.91	18.19	18.43	19.34	19.56	21.14