

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: P855329

Luminaire Tested: SQ2-PP3-150U-050D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855329
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-150U-050D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

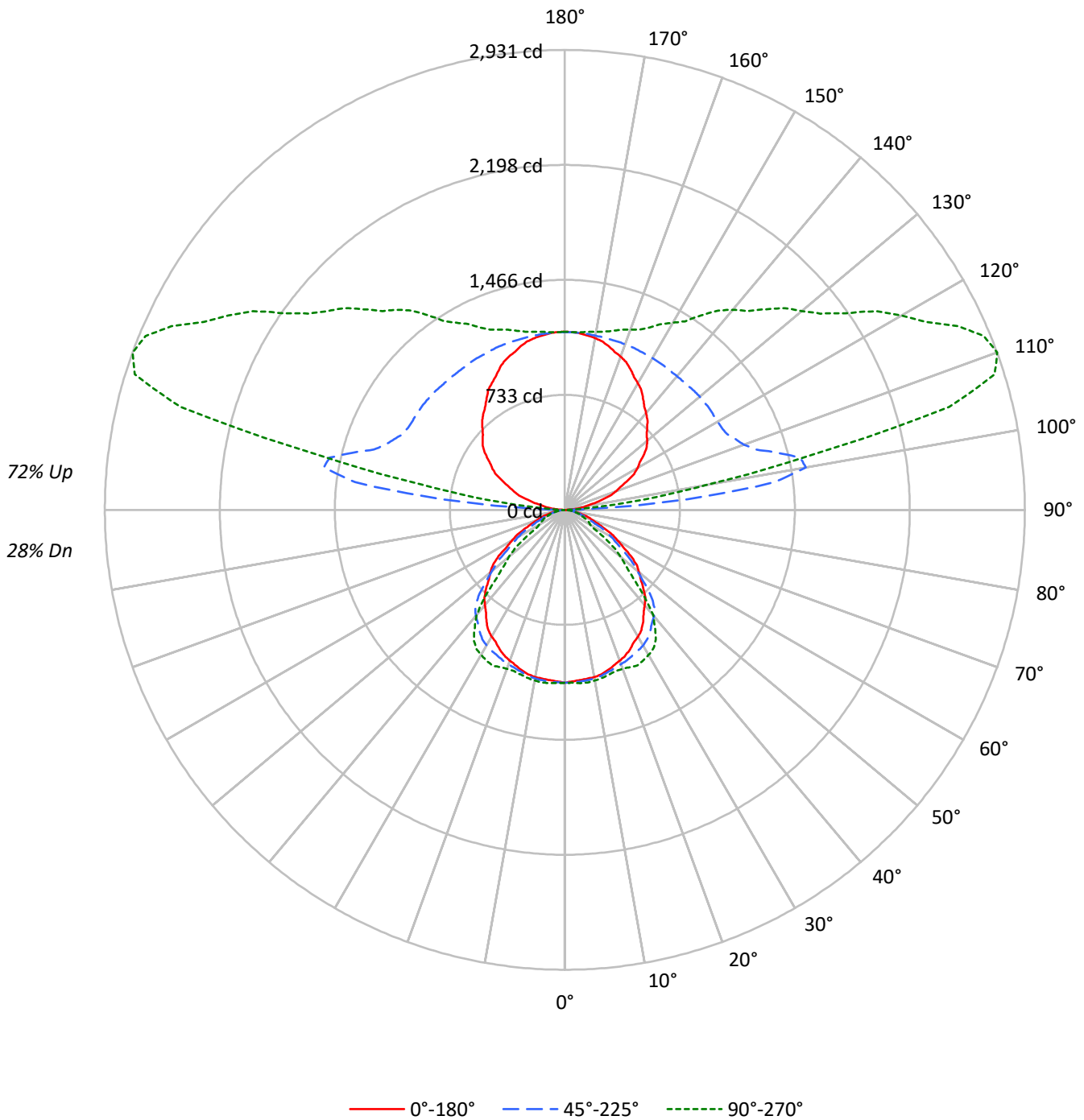
Lumens per Lamp: N/A
Luminaire Lumens: 9776.0 lumens
Efficiency: N/A
Efficacy: 131.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 74.4
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: P855329

CATALOG NUMBER: SQ2-PP3-150U-050D-840-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855329

CATALOG NUMBER: SQ2-PP3-150U-050D-840-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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	28
1	93	89	86	82	83	80	77	74	63	61	59	47	46	45	33	32	31	25
2	85	78	72	68	76	70	65	61	55	52	49	42	40	38	29	28	27	21
3	78	69	62	57	69	62	56	51	49	45	42	37	34	32	26	24	23	18
4	71	61	54	48	63	55	49	44	44	39	36	33	30	28	23	21	20	16
5	65	54	47	41	58	49	42	37	39	34	31	30	26	24	21	19	17	14
6	60	49	41	35	54	44	37	32	35	30	27	27	23	21	19	17	15	12
7	55	44	36	31	50	40	33	28	32	27	23	24	21	19	17	15	14	11
8	51	40	32	27	46	36	29	25	29	24	21	22	19	16	16	14	12	10
9	48	36	29	24	43	33	26	22	26	22	18	20	17	15	15	13	11	9
10	44	33	26	21	40	30	24	20	24	20	16	19	15	13	14	11	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17801	17801	17801
5°	17661	17812	17982
10°	17751	17884	18113
15°	17707	17882	18156
20°	17581	18002	18522
25°	17482	18228	19495
30°	17381	18599	19902
35°	17136	18652	19939
40°	16678	18619	18423
45°	16180	17776	14024
50°	15543	15164	11680
55°	14466	12760	8397
60°	12455	10950	6022
65°	10506	8458	5922
70°	8748	6656	5665
75°	7417	5745	5309
80°	6285	4984	4770
85°	4965	4094	2594

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17776 cd/sqm



TEST NUMBER: P855329

CATALOG NUMBER: SQ2-PP3-150U-050D-840-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.0	1.1
10°-20°	303.8	3.1
20°-30°	476.0	4.9
30°-40°	587.1	6.0
40°-50°	552.8	5.7
50°-60°	391.4	4.0
60°-70°	223.0	2.3
70°-80°	110.3	1.1
80°-90°	28.2	0.3
90°-100°	432.0	4.4
100°-110°	1414.7	14.5
110°-120°	1398.6	14.3
120°-130°	1143.3	11.7
130°-140°	933.0	9.5
140°-150°	726.1	7.4
150°-160°	522.8	5.3
160°-170°	319.8	3.3
170°-180°	108.1	1.1
0°-30°	884.8	9.1
0°-40°	1471.9	15.1
0°-60°	2416.1	24.7
0°-90°	2777.7	28.4
90°-120°	3245.3	33.2
90°-150°	6047.6	61.9
90°-180°	6998.0	71.6
0°-180°	9776.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1102	1102	1102	1102	1102	
5°	1090	1109	1099	1102	1110	104
15°	1059	1074	1070	1080	1086	299
25°	981	1006	1023	1065	1094	452
35°	869	893	946	1000	1012	542
45°	709	762	778	660	614	545
55°	514	545	453	342	298	453
65°	275	290	221	156	155	276
75°	119	132	92	86	85	129
85°	27	24	22	17	14	31
90°	1	4	9	8	9	4
95°	61	176	786	280	182	69
105°	246	351	1404	2668	2534	259
115°	443	529	1141	2358	2768	437
125°	616	687	1124	1859	2184	548
135°	742	821	1115	1604	1807	574
145°	868	932	1113	1379	1511	544
155°	989	1022	1120	1234	1282	455
165°	1080	1090	1124	1168	1180	304
175°	1129	1129	1130	1138	1136	107
180°	1134	1134	1134	1134	1134	



TEST NUMBER: P855329

CATALOG NUMBER: SQ2-PP3-150U-050D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1102.5	1102.5	1102.5	1102.5	1102.5
2.5°	1094.1	1109.6	1099.7	1101.5	1103.4
5°	1089.7	1109.0	1099.0	1101.5	1109.5
7.5°	1085.5	1105.3	1095.5	1099.7	1109.5
10°	1082.7	1099.8	1090.8	1096.9	1104.8
12.5°	1074.3	1090.5	1082.4	1090.2	1097.3
15°	1059.3	1074.2	1069.8	1080.4	1086.2
17.5°	1039.1	1057.1	1057.0	1072.1	1078.0
20°	1023.2	1044.9	1047.7	1066.6	1078.0
22.5°	1006.4	1031.7	1036.5	1064.9	1084.5
25°	981.3	1006.3	1023.2	1064.7	1094.3
27.5°	951.9	976.7	1011.6	1058.1	1081.5
30°	932.3	956.2	997.6	1045.8	1067.5
32.5°	908.1	932.9	977.1	1029.0	1048.9
35°	869.4	893.3	946.3	1000.1	1011.6
37.5°	824.9	852.0	911.3	941.4	942.1
40°	791.3	826.6	883.4	888.9	874.1
42.5°	758.7	804.0	844.2	819.6	753.8
45°	708.6	762.2	778.5	659.7	614.2
47.5°	655.2	708.1	682.0	553.3	521.9
50°	618.8	668.9	603.7	494.6	465.0
52.5°	577.8	622.4	533.8	438.3	393.2
55°	513.9	544.7	453.3	341.7	298.3
57.5°	437.0	458.7	387.6	256.5	207.9
60°	385.7	402.9	339.1	210.4	186.5
62.5°	339.1	354.4	288.8	182.7	174.3
65°	275.0	289.8	221.4	156.2	155.0
67.5°	218.9	235.1	169.9	136.4	135.0
70°	185.3	202.4	141.0	122.4	120.0
72.5°	157.3	173.5	119.6	107.4	106.1
75°	118.9	131.5	92.1	86.2	85.1
77.5°	86.2	94.2	68.5	65.5	64.3
80°	67.6	71.0	53.6	52.4	51.3
82.5°	50.8	49.6	40.6	39.4	37.3
85°	26.8	24.5	22.1	17.4	14.0
87.5°	8.6	9.1	5.6	4.4	4.7
90°	1.2	3.5	9.3	8.2	9.3
92.5°	19.8	72.3	221.9	72.1	57.8
95°	60.6	175.6	785.5	279.8	181.8
97.5°	110.0	231.7	1347.6	815.2	505.3
100°	144.5	260.7	1559.2	1392.4	922.9
102.5°	183.7	297.2	1535.9	2051.7	1590.4
105°	245.9	350.7	1404.2	2667.8	2534.5
107.5°	307.2	403.3	1275.8	2725.5	2872.0
110°	347.3	440.8	1214.2	2658.4	2930.8



TEST NUMBER: P855329

CATALOG NUMBER: SQ2-PP3-150U-050D-840-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	385.5	476.2	1176.9	2541.7	2890.7
115°	442.9	529.4	1140.8	2357.5	2767.6
117.5°	498.6	579.4	1127.1	2176.3	2592.8
120°	534.9	611.3	1123.3	2070.7	2476.2
122.5°	567.6	642.0	1123.3	1979.6	2356.1
125°	616.5	687.1	1124.5	1859.0	2183.8
127.5°	658.0	729.9	1123.1	1770.2	2052.9
130°	684.1	756.9	1122.2	1716.5	1971.7
132.5°	707.4	782.1	1119.4	1670.3	1901.8
135°	742.4	820.9	1115.2	1603.5	1807.4
137.5°	779.2	857.0	1112.6	1533.8	1718.2
140°	805.2	880.5	1111.7	1489.7	1664.1
142.5°	831.3	902.0	1111.7	1442.8	1600.7
145°	868.1	932.0	1112.8	1379.3	1511.4
147.5°	906.8	959.9	1114.5	1324.0	1423.8
150°	931.0	977.8	1116.3	1292.0	1376.2
152.5°	955.3	996.5	1117.3	1265.5	1335.2
155°	989.3	1022.4	1119.8	1234.0	1281.8
157.5°	1019.8	1043.8	1122.4	1209.2	1243.8
160°	1039.4	1058.9	1123.3	1195.1	1222.4
162.5°	1056.2	1071.9	1123.3	1183.7	1203.7
165°	1080.2	1090.5	1124.5	1168.0	1180.4
167.5°	1100.5	1105.5	1125.9	1155.7	1162.5
170°	1111.7	1114.0	1126.8	1149.1	1151.3
172.5°	1120.1	1121.5	1129.6	1144.3	1144.8
175°	1129.2	1129.2	1130.3	1138.5	1136.1
177.5°	1133.8	1132.9	1132.0	1137.5	1133.8
180°	1133.8	1133.8	1133.8	1133.8	1133.8



TEST NUMBER: P855329

CATALOG NUMBER: SQ2-PP3-150U-050D-840-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	15.09	15.77	16.22	16.89	18.44	11.49	12.17	12.62	13.29	14.84
	3H	16.17	16.78	17.31	17.91	19.47	12.58	13.19	13.72	14.31	15.88
	4H	16.51	17.08	17.65	18.21	19.78	13.03	13.61	14.18	14.74	16.31
	6H	16.71	17.24	17.87	18.37	19.96	13.37	13.90	14.52	15.03	16.61
	8H	16.76	17.26	17.91	18.40	19.98	13.45	13.95	14.61	15.10	16.67
	12H	16.77	17.24	17.93	18.38	19.98	13.46	13.94	14.62	15.07	16.67
4H	2H	15.18	15.75	16.33	16.88	18.45	12.18	12.76	13.33	13.88	15.45
	3H	16.47	16.95	17.63	18.10	19.68	13.41	13.89	14.57	15.04	16.63
	4H	16.94	17.38	18.10	18.52	20.12	13.96	14.40	15.12	15.54	17.15
	6H	17.26	17.64	18.43	18.80	20.40	14.39	14.77	15.56	15.93	17.53
	8H	17.35	17.71	18.52	18.86	20.47	14.51	14.86	15.67	16.01	17.63
	12H	17.38	17.70	18.56	18.87	20.48	14.53	14.85	15.71	16.01	17.63
8H	4H	16.94	17.29	18.11	18.45	20.06	14.22	14.57	15.39	15.73	17.34
	6H	17.37	17.66	18.55	18.85	20.46	14.76	15.05	15.94	16.25	17.85
	8H	17.52	17.78	18.71	18.95	20.58	14.95	15.20	16.14	16.37	18.00
	12H	17.60	17.82	18.80	19.00	20.66	15.01	15.23	16.21	16.41	18.07
12H	4H	16.89	17.21	18.07	18.38	19.99	14.22	14.54	15.40	15.71	17.32
	6H	17.36	17.61	18.55	18.78	20.41	14.81	15.07	16.00	16.24	17.87
	8H	17.52	17.74	18.71	18.91	20.57	15.01	15.24	16.21	16.41	18.07