

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: P854316

Luminaire Tested: SQ2-PW1-150U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854316
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-050D-930-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

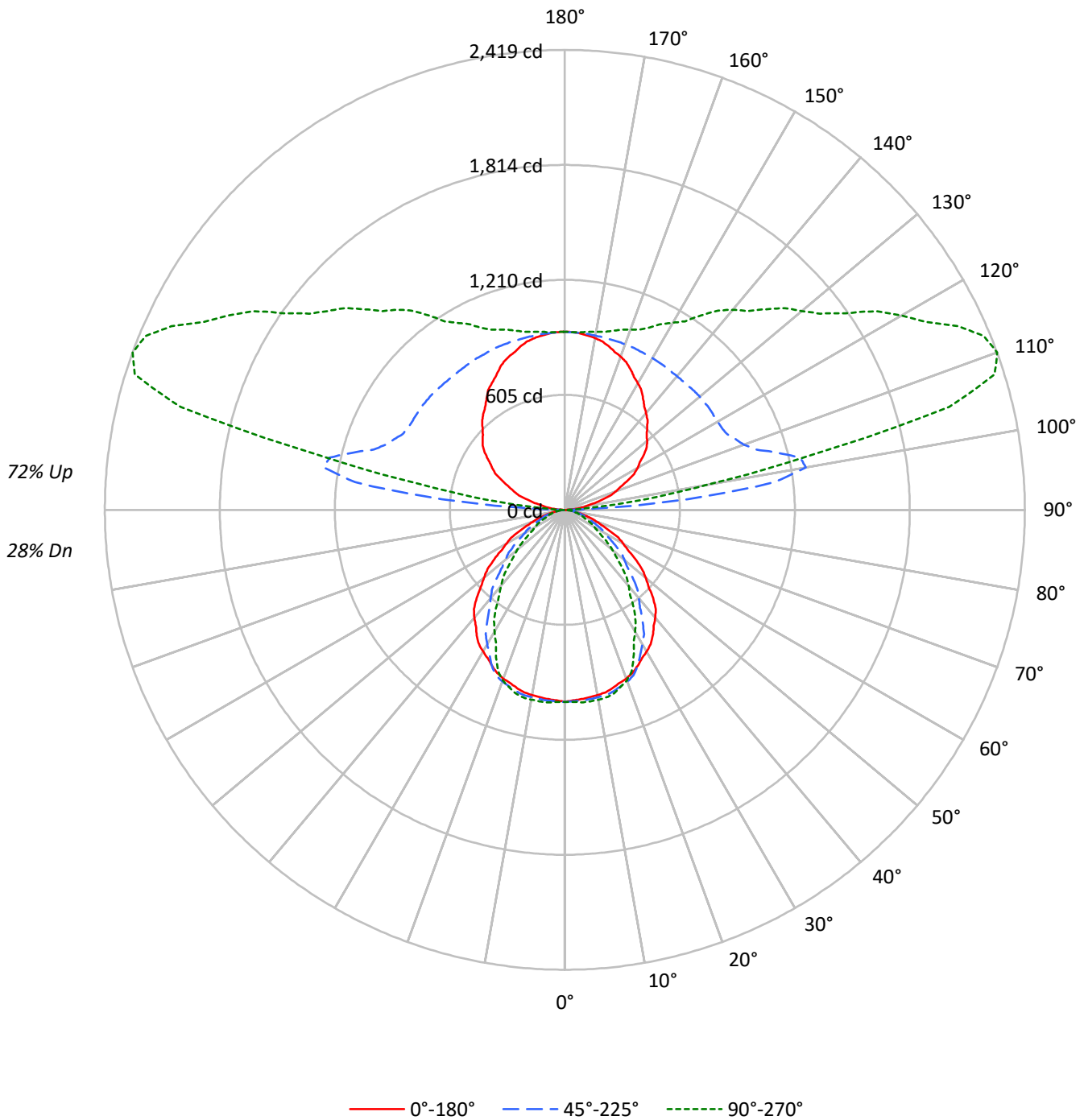
Lumens per Lamp: N/A
Luminaire Lumens: 8017.5 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 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

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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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	28
1	93	89	85	82	83	80	77	74	63	61	59	47	46	44	32	32	31	24
2	85	78	72	68	76	70	65	61	55	52	49	41	39	38	29	28	26	21
3	78	69	62	57	69	62	56	52	49	45	42	37	34	32	26	24	23	18
4	71	61	54	48	64	55	49	44	44	39	36	33	30	28	23	21	20	16
5	65	54	47	41	58	49	43	38	39	34	31	30	27	24	21	19	18	14
6	60	49	41	36	54	44	37	33	35	30	27	27	24	21	19	17	16	12
7	56	44	36	31	50	40	33	29	32	27	24	24	21	19	17	15	14	11
8	51	40	32	27	46	36	30	25	29	24	21	22	19	17	16	14	12	10
9	48	36	29	24	43	33	27	22	27	22	19	21	17	15	15	13	11	9
10	45	33	26	22	40	30	24	20	24	20	17	19	16	14	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16306	16306	16306
5°	16196	16321	16477
10°	16226	16415	16620
15°	16222	16527	16720
20°	16228	16509	16393
25°	16140	16158	15232
30°	16032	15224	13772
35°	15906	14010	12435
40°	15588	12770	10987
45°	14979	11485	9597
50°	13941	10268	8214
55°	12752	9070	6660
60°	11428	7889	5745
65°	9994	6797	5108
70°	8172	6038	4631
75°	6363	5221	4261
80°	4742	4472	3756
85°	3205	3390	2130

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14979 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.2	1.2
10°-20°	278.6	3.5
20°-30°	410.0	5.1
30°-40°	448.3	5.6
40°-50°	402.2	5.0
50°-60°	300.0	3.7
60°-70°	189.6	2.4
70°-80°	93.9	1.2
80°-90°	23.0	0.3
90°-100°	356.5	4.4
100°-110°	1167.5	14.6
110°-120°	1154.2	14.4
120°-130°	943.5	11.8
130°-140°	770.0	9.6
140°-150°	599.2	7.5
150°-160°	431.5	5.4
160°-170°	264.0	3.3
170°-180°	89.2	1.1
0°-30°	784.8	9.8
0°-40°	1233.1	15.4
0°-60°	1935.3	24.1
0°-90°	2241.8	28.0
90°-120°	2678.3	33.4
90°-150°	4991.1	62.3
90°-180°	5776.0	72.0
0°-180°	8017.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1010	1010	1010	1010	1010	
5°	999	1015	1007	1008	1017	95
15°	970	989	989	996	1000	274
25°	906	926	907	869	855	417
35°	807	798	711	649	631	503
45°	656	603	503	440	420	503
55°	453	410	322	253	237	405
65°	262	240	178	143	134	259
75°	102	110	84	70	68	112
85°	17	22	18	12	12	22
90°	1	3	8	7	8	3
95°	50	145	648	231	150	57
105°	203	289	1159	2202	2092	214
115°	366	437	942	1946	2284	361
125°	509	567	928	1534	1802	453
135°	613	678	920	1323	1492	474
145°	716	769	918	1138	1247	449
155°	816	844	924	1018	1058	376
165°	892	900	928	964	974	251
175°	932	932	933	940	938	88
180°	936	936	936	936	936	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1009.9	1009.9	1009.9	1009.9	1009.9
2.5°	1003.0	1015.8	1007.6	1008.4	1010.7
5°	999.3	1015.3	1007.0	1008.2	1016.6
7.5°	994.3	1010.5	1004.3	1007.8	1016.1
10°	989.7	1006.6	1001.2	1006.2	1013.7
12.5°	983.5	1001.2	997.4	1003.1	1010.7
15°	970.5	989.3	988.7	995.6	1000.3
17.5°	955.3	974.1	973.2	974.9	977.2
20°	944.5	963.3	960.8	954.1	954.1
22.5°	929.1	949.4	943.1	924.7	918.7
25°	906.0	925.8	907.0	869.2	855.0
27.5°	879.1	895.1	857.4	803.6	784.1
30°	859.9	872.1	816.6	757.5	738.7
32.5°	839.9	844.6	775.0	713.6	693.3
35°	807.0	798.5	710.8	648.8	630.9
37.5°	768.1	742.9	649.0	584.1	564.4
40°	739.6	703.9	605.9	541.0	521.3
42.5°	708.1	663.3	565.2	500.3	479.8
45°	656.0	603.3	503.0	440.1	420.3
47.5°	597.3	545.0	444.9	384.0	367.0
50°	555.0	504.2	408.8	347.7	327.0
52.5°	511.9	466.4	373.4	310.6	282.4
55°	453.0	409.8	322.2	252.6	236.6
57.5°	392.4	355.0	275.8	212.6	199.5
60°	353.9	321.0	244.3	191.1	177.9
62.5°	317.0	287.9	213.5	171.1	160.2
65°	261.6	240.0	177.9	143.1	133.7
67.5°	207.8	195.7	147.9	117.4	111.2
70°	173.1	169.4	127.9	102.8	98.1
72.5°	143.1	144.6	108.7	89.0	85.8
75°	102.0	109.5	83.7	70.2	68.3
77.5°	69.4	80.7	61.9	51.9	50.4
80°	51.0	62.3	48.1	40.4	40.4
82.5°	35.6	44.6	34.2	30.4	30.4
85°	17.3	22.0	18.3	12.5	11.5
87.5°	4.8	7.4	4.6	3.7	3.8
90°	1.0	2.8	7.7	6.8	7.7
92.5°	16.3	59.6	183.1	59.6	47.7
95°	50.0	145.0	648.2	230.9	150.0
97.5°	90.8	191.2	1112.1	672.8	417.0
100°	119.3	215.2	1286.8	1149.1	761.7
102.5°	151.6	245.2	1267.6	1693.2	1312.6
105°	202.9	289.4	1158.9	2201.8	2091.8
107.5°	253.5	332.9	1052.9	2249.3	2370.3
110°	286.6	363.7	1002.1	2194.0	2418.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	318.1	393.0	971.3	2097.7	2385.7
115°	365.5	436.9	941.5	1945.6	2284.1
117.5°	411.4	478.2	930.2	1796.0	2139.8
120°	441.4	504.4	927.1	1708.9	2043.7
122.5°	468.4	529.9	927.1	1633.7	1944.4
125°	508.8	567.1	928.1	1534.3	1802.3
127.5°	543.0	602.4	926.9	1461.0	1694.2
130°	564.5	624.7	926.1	1416.6	1627.2
132.5°	583.8	645.5	923.8	1378.5	1569.5
135°	612.6	677.5	920.4	1323.3	1491.6
137.5°	643.0	707.3	918.3	1265.8	1418.0
140°	664.6	726.6	917.5	1229.5	1373.3
142.5°	686.1	744.4	917.5	1190.7	1321.0
145°	716.5	769.1	918.4	1138.3	1247.4
147.5°	748.4	792.2	919.8	1092.7	1175.0
150°	768.4	807.0	921.3	1066.2	1135.8
152.5°	788.4	822.5	922.1	1044.4	1101.9
155°	816.5	843.8	924.2	1018.4	1057.9
157.5°	841.7	861.5	926.3	998.0	1026.5
160°	857.9	873.8	927.1	986.3	1008.9
162.5°	871.7	884.7	927.1	976.9	993.5
165°	891.5	900.0	928.1	963.9	974.2
167.5°	908.3	912.4	929.2	953.8	959.4
170°	917.5	919.4	930.0	948.3	950.2
172.5°	924.4	925.5	932.3	944.4	944.8
175°	931.9	931.9	932.9	939.6	937.7
177.5°	935.8	935.0	934.2	938.8	935.8
180°	935.8	935.8	935.8	935.8	935.8



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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	14.23	14.91	15.36	16.02	17.58	10.72	11.39	11.85	12.51	14.07
	3H	15.54	16.14	16.68	17.27	18.84	11.91	12.51	13.05	13.64	15.21
	4H	15.90	16.48	17.05	17.60	19.18	12.35	12.92	13.50	14.05	15.62
	6H	16.10	16.62	17.25	17.75	19.34	12.65	13.18	13.81	14.31	15.90
	8H	16.13	16.63	17.29	17.77	19.35	12.72	13.22	13.88	14.37	15.95
	12H	16.12	16.59	17.28	17.73	19.33	12.73	13.20	13.89	14.34	15.95
4H	2H	14.31	14.88	15.47	16.01	17.59	11.38	11.95	12.53	13.08	14.66
	3H	15.84	16.32	17.00	17.47	19.06	12.75	13.22	13.91	14.38	15.97
	4H	16.34	16.78	17.50	17.92	19.53	13.29	13.72	14.45	14.87	16.48
	6H	16.66	17.04	17.83	18.20	19.80	13.68	14.05	14.85	15.22	16.82
	8H	16.74	17.09	17.91	18.24	19.86	13.78	14.13	14.95	15.29	16.90
	12H	16.75	17.06	17.93	18.23	19.85	13.80	14.11	14.98	15.28	16.90
8H	4H	16.37	16.71	17.53	17.87	19.49	13.60	13.95	14.77	15.11	16.72
	6H	16.80	17.08	17.98	18.28	19.90	14.10	14.39	15.29	15.59	17.20
	8H	16.94	17.19	18.13	18.37	20.00	14.26	14.51	15.45	15.69	17.32
	12H	17.00	17.22	18.19	18.39	20.06	14.32	14.53	15.51	15.71	17.38
12H	4H	16.32	16.63	17.50	17.80	19.42	13.61	13.92	14.79	15.09	16.71
	6H	16.79	17.04	17.98	18.21	19.85	14.16	14.42	15.36	15.59	17.23
	8H	16.94	17.16	18.14	18.34	20.00	14.34	14.56	15.54	15.74	17.40