

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: P854064

Luminaire Tested: SQ2-PH1-150U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854064
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-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

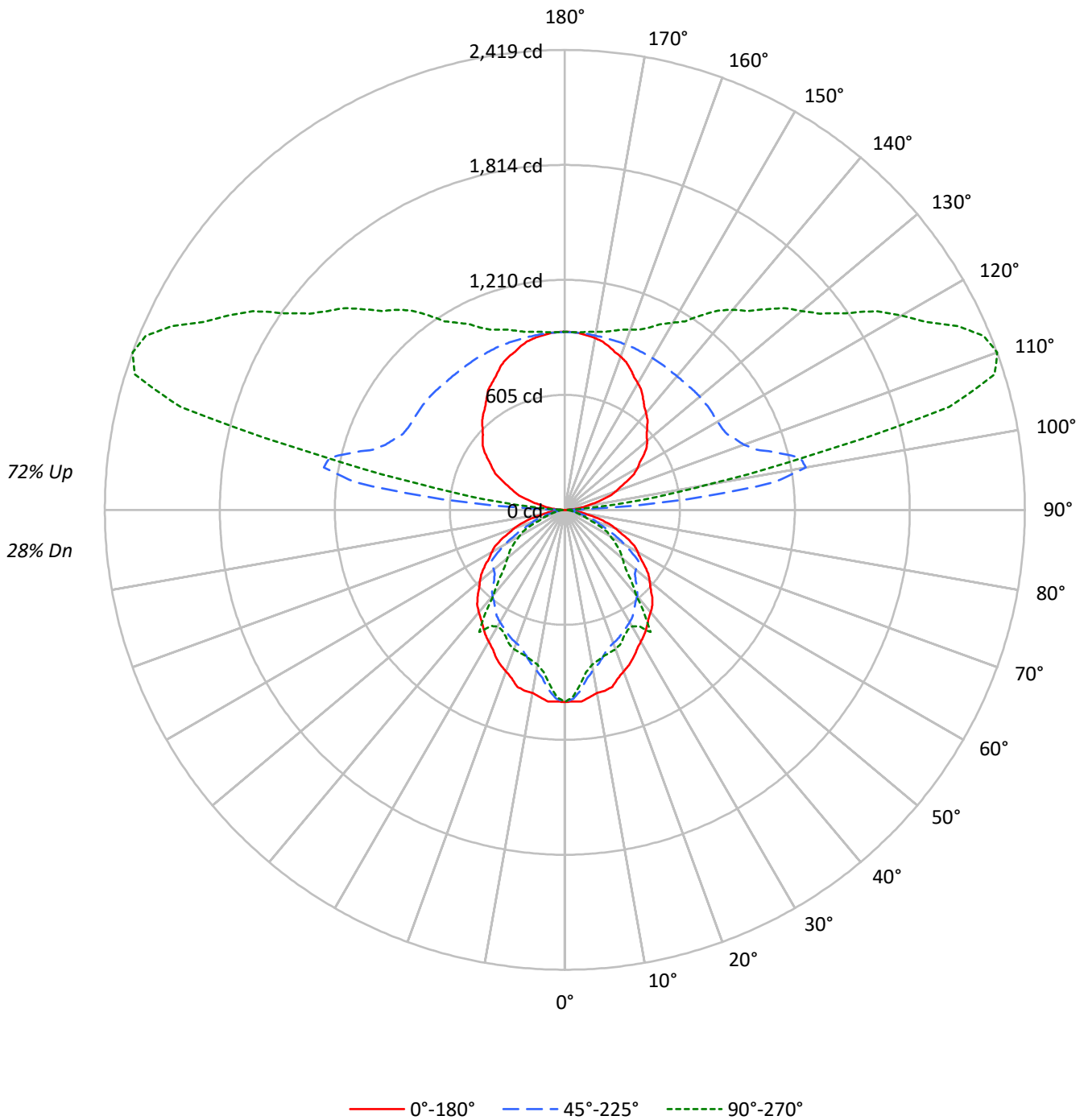
Lumens per Lamp: N/A
Luminaire Lumens: 8012.6 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 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	62	60	58	46	45	44	32	31	30	24
2	85	78	72	67	76	70	65	61	55	51	48	41	39	37	28	27	26	20
3	77	68	61	56	69	61	55	51	48	44	41	36	33	31	25	23	22	17
4	71	60	53	47	63	54	48	43	43	38	35	32	29	27	22	20	19	15
5	65	54	46	40	58	48	42	37	38	33	30	29	26	23	20	18	16	13
6	59	48	40	35	53	43	36	32	34	29	26	26	23	20	18	16	14	11
7	55	43	35	30	49	39	32	28	31	26	23	24	20	18	17	14	13	10
8	51	39	32	26	45	35	29	24	28	23	20	21	18	16	15	13	11	9
9	47	35	28	23	42	32	26	22	26	21	18	20	16	14	14	12	10	8
10	44	32	25	21	39	29	23	19	24	19	16	18	15	13	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16322	16322	16322
5°	16415	15433	14917
10°	16038	14050	13562
15°	16109	13215	13295
20°	15534	12807	13402
25°	15250	12748	13090
30°	14919	12713	13198
35°	14806	12569	15469
40°	14819	12488	12265
45°	14824	12013	10563
50°	14616	12248	9904
55°	14429	13292	9503
60°	14286	11648	8913
65°	14036	9444	7752
70°	13256	8035	5537
75°	11822	6057	4198
80°	9661	3933	3933
85°	6058	3557	2668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14824 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.9	1.1
10°-20°	234.0	2.9
20°-30°	343.1	4.3
30°-40°	415.5	5.2
40°-50°	408.5	5.1
50°-60°	355.6	4.4
60°-70°	247.2	3.1
70°-80°	117.2	1.5
80°-90°	26.9	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°	666.0	8.3
0°-40°	1081.4	13.5
0°-60°	1845.6	23.0
0°-90°	2236.9	27.9
90°-120°	2678.3	33.4
90°-150°	4991.1	62.3
90°-180°	5776.0	72.1
0°-180°	8012.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1011	1011	1011	1011	1011	
5°	1013	1012	952	922	920	95
15°	964	858	791	785	795	269
25°	856	728	716	738	735	394
35°	751	607	638	693	785	471
45°	649	481	526	544	463	499
55°	513	374	472	340	338	458
65°	367	257	247	203	203	361
75°	190	131	97	69	67	201
85°	33	21	19	15	14	44
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°	1010.9	1010.9	1010.9	1010.9	1010.9
2.5°	1008.5	1019.1	995.5	986.2	984.7
5°	1012.8	1011.8	952.2	922.3	920.4
7.5°	994.3	965.2	893.9	861.0	859.5
10°	978.2	934.0	857.0	827.2	827.2
12.5°	974.3	904.5	827.0	804.9	809.5
15°	963.7	858.4	790.6	785.1	795.4
17.5°	928.7	815.3	762.3	774.9	786.9
20°	904.1	792.2	745.4	768.7	780.0
22.5°	883.3	769.9	733.1	758.6	764.6
25°	856.0	728.1	715.6	737.6	734.8
27.5°	823.3	689.8	698.1	711.6	713.3
30°	800.2	666.7	681.9	695.7	707.9
32.5°	777.9	639.9	664.2	696.8	724.8
35°	751.2	607.3	637.7	692.7	784.8
37.5°	723.1	568.9	610.9	657.2	686.5
40°	703.1	541.3	592.5	649.6	581.9
42.5°	681.5	519.8	564.8	638.5	524.2
45°	649.2	480.9	526.1	544.4	462.6
47.5°	611.1	450.7	499.9	454.0	422.0
50°	581.9	430.5	487.6	415.0	394.3
52.5°	553.4	409.5	479.2	382.9	368.9
55°	512.6	374.4	472.2	340.4	337.6
57.5°	469.4	338.6	417.6	303.5	308.4
60°	442.4	315.5	360.7	281.7	276.0
62.5°	414.0	293.0	307.6	254.0	248.3
65°	367.4	257.4	247.2	202.9	202.9
67.5°	316.2	220.3	200.2	166.1	143.5
70°	280.8	196.2	170.2	132.4	117.3
72.5°	243.1	170.5	139.5	108.5	91.2
75°	189.5	131.2	97.1	69.2	67.3
77.5°	137.0	94.5	65.4	51.4	51.6
80°	103.9	71.9	42.3	41.4	42.3
82.5°	73.1	49.4	31.5	32.9	33.1
85°	32.7	21.4	19.2	15.4	14.4
87.5°	7.1	6.7	5.4	5.2	5.4
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	14.52	15.21	15.65	16.33	17.89	13.19	13.88	14.32	15.00	16.56
	3H	16.53	17.15	17.67	18.28	19.85	14.21	14.83	15.35	15.96	17.53
	4H	17.26	17.84	18.40	18.97	20.55	14.42	15.00	15.56	16.13	17.71
	6H	17.73	18.27	18.88	19.40	20.99	14.55	15.09	15.71	16.22	17.81
	8H	17.85	18.36	19.01	19.51	21.09	14.58	15.09	15.74	16.24	17.82
	12H	17.89	18.38	19.05	19.51	21.12	14.57	15.06	15.73	16.20	17.80
4H	2H	14.87	15.46	16.03	16.59	18.16	13.81	14.40	14.97	15.53	17.10
	3H	16.96	17.45	18.12	18.60	20.19	14.98	15.46	16.13	16.62	18.21
	4H	17.77	18.22	18.93	19.36	20.97	15.24	15.69	16.41	16.83	18.44
	6H	18.35	18.73	19.51	19.90	21.49	15.44	15.83	16.61	16.99	18.59
	8H	18.51	18.87	19.68	20.03	21.64	15.50	15.85	16.66	17.01	18.62
	12H	18.57	18.90	19.75	20.06	21.68	15.49	15.82	16.68	16.99	18.61
8H	4H	17.78	18.13	18.94	19.29	20.90	15.45	15.80	16.61	16.96	18.58
	6H	18.42	18.71	19.61	19.91	21.53	15.71	16.01	16.90	17.20	18.82
	8H	18.64	18.90	19.83	20.08	21.71	15.81	16.07	17.00	17.25	18.88
	12H	18.75	18.98	19.94	20.15	21.81	15.85	16.07	17.04	17.25	18.91
12H	4H	17.72	18.04	18.90	19.21	20.83	15.43	15.76	16.62	16.93	18.55
	6H	18.39	18.65	19.58	19.83	21.46	15.74	16.00	16.93	17.17	18.81
	8H	18.62	18.84	19.81	20.02	21.68	15.85	16.07	17.04	17.25	18.91