

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: P854065

Luminaire Tested: SQ2-PH1-150U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

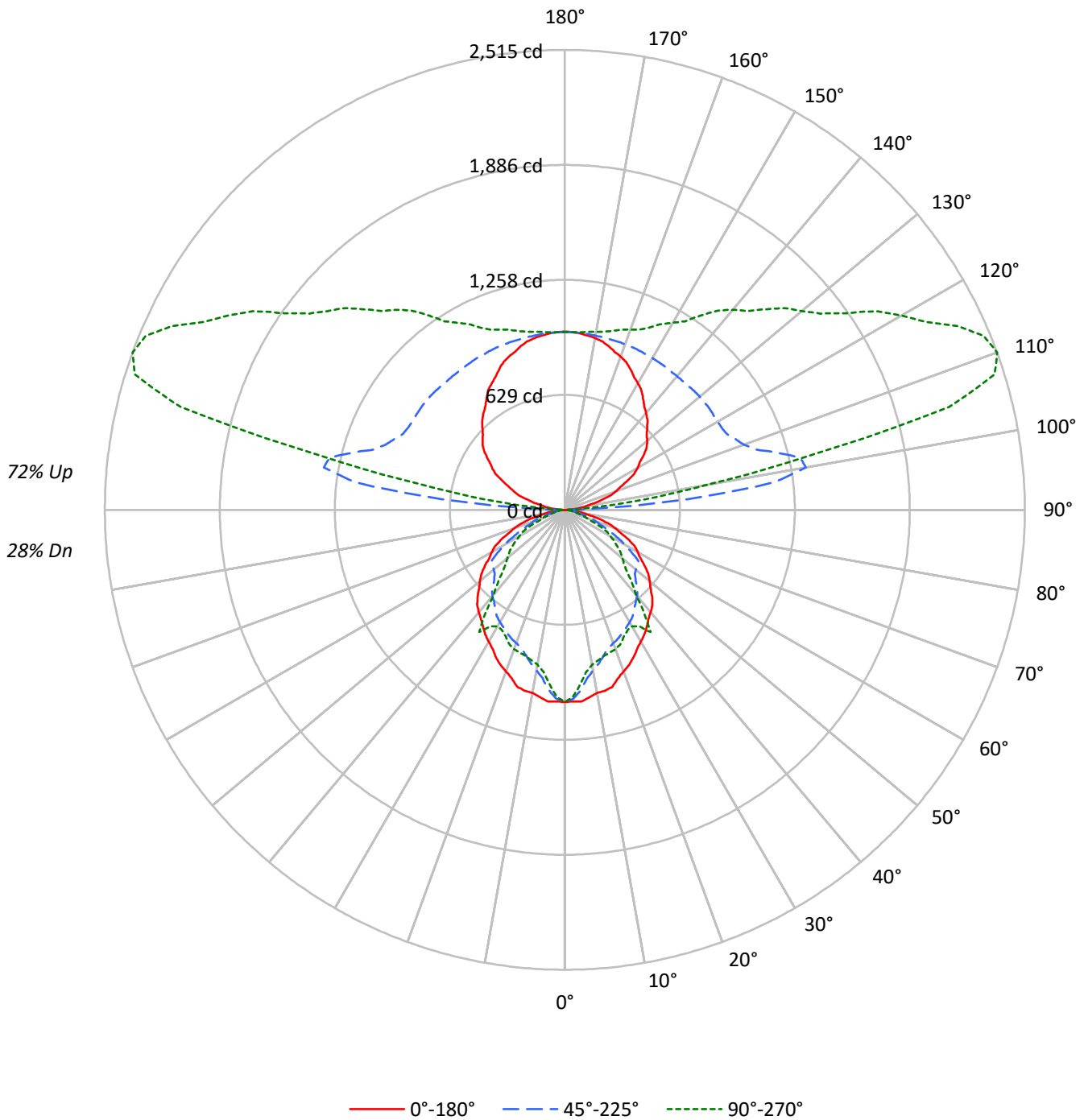
Test Method: LM-79-2019  
Report Number: P854065  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-150U-050D-935-UNV-STD-W-4  
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: 8330.9 lumens  
Efficiency: N/A  
Efficacy: 112.0 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°	16969	16969	16969
5°	17067	16045	15511
10°	16674	14608	14100
15°	16749	13740	13824
20°	16151	13316	13935
25°	15855	13254	13611
30°	15511	13218	13722
35°	15394	13068	16084
40°	15407	12983	12752
45°	15413	12490	10983
50°	15197	12735	10299
55°	15004	13821	9880
60°	14854	12109	9268
65°	14594	9819	8061
70°	13785	8356	5759
75°	12289	6301	4367
80°	10042	4091	4091
85°	6299	3705	2779

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15413 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.5	1.1
10°-20°	243.3	2.9
20°-30°	356.7	4.3
30°-40°	431.9	5.2
40°-50°	424.8	5.1
50°-60°	369.8	4.4
60°-70°	257.1	3.1
70°-80°	121.9	1.5
80°-90°	27.9	0.3
90°-100°	370.7	4.4
100°-110°	1213.9	14.6
110°-120°	1200.1	14.4
120°-130°	981.0	11.8
130°-140°	800.6	9.6
140°-150°	623.0	7.5
150°-160°	448.6	5.4
160°-170°	274.4	3.3
170°-180°	92.7	1.1
0°-30°	692.4	8.3
0°-40°	1124.4	13.5
0°-60°	1918.9	23.0
0°-90°	2325.8	27.9
90°-120°	2784.7	33.4
90°-150°	5189.3	62.3
90°-180°	6005.0	72.1
0°-180°	8330.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1053	1052	990	959	957	99
15°	1002	892	822	816	827	279
25°	890	757	744	767	764	409
35°	781	631	663	720	816	489
45°	675	500	547	566	481	519
55°	533	389	491	354	351	476
65°	382	268	257	211	211	375
75°	197	136	101	72	70	209
85°	34	22	20	16	15	46
90°	1	3	8	7	8	4
95°	52	151	674	240	156	59
105°	211	301	1205	2289	2175	222
115°	380	454	979	2023	2375	375
125°	529	590	965	1595	1874	471
135°	637	704	957	1376	1551	493
145°	745	800	955	1184	1297	467
155°	849	877	961	1059	1100	391
165°	927	936	965	1002	1013	261
175°	969	969	970	977	975	92
180°	973	973	973	973	973	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1051.0	1051.0	1051.0	1051.0	1051.0
2.5°	1048.6	1059.6	1035.0	1025.4	1023.8
5°	1053.0	1052.0	990.0	959.0	957.0
7.5°	1033.8	1003.5	929.4	895.2	893.6
10°	1017.0	971.1	891.0	860.0	860.0
12.5°	1013.0	940.5	859.8	836.9	841.6
15°	1002.0	892.5	822.0	816.3	827.0
17.5°	965.6	847.7	792.6	805.7	818.2
20°	940.0	823.7	775.0	799.3	811.0
22.5°	918.4	800.5	762.2	788.7	795.0
25°	890.0	757.0	744.0	766.9	764.0
27.5°	856.0	717.2	725.8	739.8	741.6
30°	832.0	693.2	709.0	723.3	736.0
32.5°	808.8	665.3	690.6	724.5	753.6
35°	781.0	631.4	663.0	720.2	816.0
37.5°	751.8	591.4	635.2	683.3	713.8
40°	731.0	562.8	616.0	675.4	605.0
42.5°	708.6	540.4	587.2	663.9	545.0
45°	675.0	500.0	547.0	566.1	481.0
47.5°	635.4	468.6	519.8	472.0	438.8
50°	605.0	447.6	507.0	431.5	410.0
52.5°	575.4	425.8	498.2	398.1	383.6
55°	533.0	389.3	491.0	353.9	351.0
57.5°	488.0	352.1	434.2	315.5	320.6
60°	460.0	328.0	375.0	292.9	287.0
62.5°	430.4	304.7	319.8	264.1	258.2
65°	382.0	267.6	257.0	211.0	211.0
67.5°	328.8	229.1	208.2	172.7	149.2
70°	292.0	204.0	177.0	137.6	122.0
72.5°	252.8	177.3	145.0	112.8	94.8
75°	197.0	136.4	101.0	72.0	70.0
77.5°	142.4	98.2	68.0	53.4	53.6
80°	108.0	74.8	44.0	43.0	44.0
82.5°	76.0	51.4	32.8	34.2	34.4
85°	34.0	22.3	20.0	16.0	15.0
87.5°	7.4	7.0	5.6	5.4	5.6
90°	1.0	3.0	8.0	7.0	8.0
92.5°	17.0	62.0	190.4	61.9	49.6
95°	52.0	150.7	674.0	240.1	156.0
97.5°	94.4	198.8	1156.3	699.5	433.6
100°	124.0	223.7	1337.9	1194.8	791.9
102.5°	157.6	255.0	1317.9	1760.5	1364.7
105°	211.0	300.9	1204.9	2289.2	2174.8
107.5°	263.6	346.1	1094.7	2338.7	2464.4
110°	298.0	378.2	1041.9	2281.1	2514.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	330.8	408.6	1009.9	2181.0	2480.4
115°	380.0	454.3	978.9	2022.9	2374.8
117.5°	427.8	497.2	967.1	1867.4	2224.8
120°	459.0	524.5	963.9	1776.8	2124.8
122.5°	487.0	550.9	963.9	1698.6	2021.7
125°	529.0	589.6	964.9	1595.2	1873.9
127.5°	564.6	626.3	963.7	1519.0	1761.5
130°	587.0	649.5	962.9	1472.9	1691.9
132.5°	607.0	671.1	960.5	1433.2	1631.9
135°	637.0	704.4	956.9	1375.9	1550.9
137.5°	668.6	735.4	954.7	1316.1	1474.3
140°	690.9	755.5	953.9	1278.3	1427.9
142.5°	713.3	774.0	953.9	1238.0	1373.5
145°	744.9	799.7	954.9	1183.5	1296.9
147.5°	778.1	823.7	956.3	1136.1	1221.7
150°	798.9	839.0	957.9	1108.6	1180.9
152.5°	819.7	855.1	958.7	1085.9	1145.7
155°	848.9	877.3	960.9	1058.9	1099.9
157.5°	875.1	895.7	963.1	1037.6	1067.3
160°	891.9	908.6	963.9	1025.5	1048.9
162.5°	906.3	919.8	963.9	1015.7	1032.9
165°	926.9	935.7	964.9	1002.2	1012.9
167.5°	944.3	948.6	966.1	991.7	997.5
170°	953.9	955.9	966.9	986.0	987.9
172.5°	961.1	962.3	969.3	981.9	982.3
175°	968.9	968.9	969.9	976.9	974.9
177.5°	972.9	972.1	971.3	976.1	972.9
180°	972.9	972.9	972.9	972.9	972.9



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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	14.66	15.35	15.78	16.46	18.02	13.33	14.02	14.46	15.14	16.69
	3H	16.67	17.28	17.80	18.41	19.98	14.35	14.97	15.49	16.09	17.66
	4H	17.39	17.98	18.54	19.10	20.68	14.56	15.14	15.70	16.27	17.84
	6H	17.87	18.41	19.02	19.54	21.12	14.69	15.23	15.84	16.36	17.95
	8H	17.99	18.50	19.14	19.64	21.22	14.72	15.23	15.87	16.37	17.96
	12H	18.03	18.51	19.19	19.65	21.25	14.71	15.19	15.87	16.33	17.94
4H	2H	15.01	15.60	16.16	16.72	18.30	13.95	14.53	15.10	15.66	17.24
	3H	17.10	17.59	18.26	18.74	20.33	15.11	15.60	16.27	16.75	18.34
	4H	17.91	18.36	19.07	19.50	21.11	15.38	15.83	16.54	16.97	18.58
	6H	18.48	18.87	19.65	20.03	21.63	15.58	15.96	16.74	17.13	18.72
	8H	18.65	19.01	19.81	20.16	21.78	15.63	15.99	16.80	17.14	18.76
	12H	18.71	19.03	19.89	20.20	21.82	15.63	15.95	16.81	17.12	18.74
8H	4H	17.91	18.27	19.08	19.42	21.04	15.58	15.94	16.75	17.10	18.71
	6H	18.56	18.85	19.74	20.05	21.66	15.85	16.14	17.03	17.34	18.95
	8H	18.78	19.04	19.97	20.21	21.85	15.95	16.20	17.14	17.38	19.01
	12H	18.89	19.11	20.08	20.29	21.95	15.98	16.21	17.18	17.38	19.05
12H	4H	17.85	18.18	19.04	19.35	20.97	15.57	15.89	16.75	17.06	18.68
	6H	18.53	18.78	19.72	19.96	21.59	15.88	16.13	17.07	17.31	18.94
	8H	18.75	18.98	19.95	20.15	21.82	15.98	16.21	17.18	17.38	19.05