

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: P854070

Luminaire Tested: SQ2-PH1-150U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854070
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-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

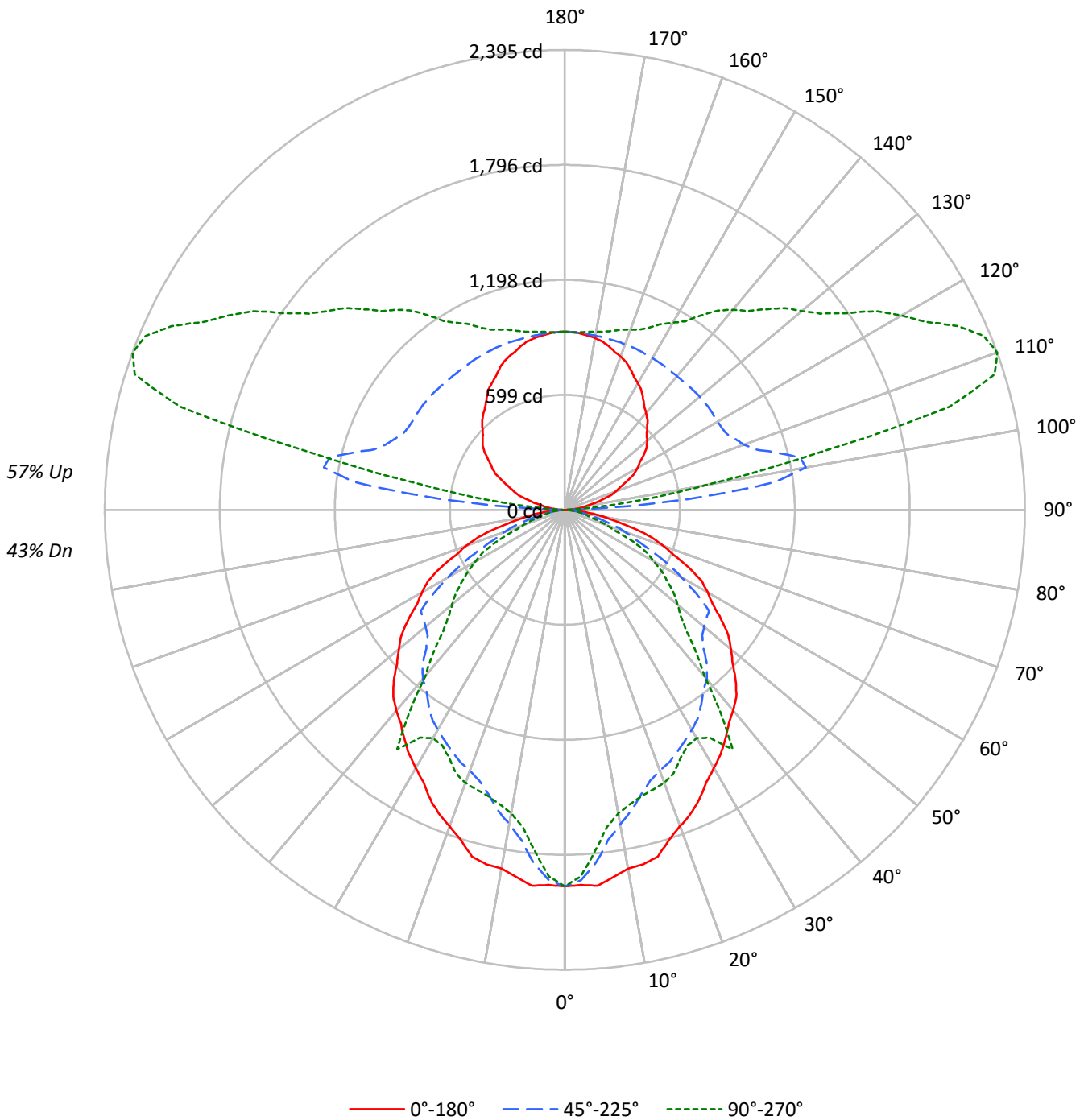
Lumens per Lamp: N/A
Luminaire Lumens: 10056.5 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 94.2
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	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	96	92	88	85	88	84	81	78	70	68	66	57	55	54	44	43	42	37
2	88	81	75	70	80	74	69	65	61	58	55	50	47	45	39	37	36	31
3	80	71	64	58	73	65	59	54	54	50	46	44	41	38	35	33	31	26
4	73	63	55	49	67	58	51	46	48	43	39	39	36	33	31	29	26	23
5	67	56	48	42	61	52	45	39	43	38	34	35	31	28	28	25	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	25	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	49	38	31	26	32	27	23	27	22	20	21	18	16	14
9	49	37	30	25	45	35	28	24	29	24	21	24	20	18	20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18	22	19	16	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31656	31656	31656
5°	31836	29932	28935
10°	31104	27250	26302
15°	31244	25631	25787
20°	30129	24840	25995
25°	29578	24725	25390
30°	28937	24658	25598
35°	28716	24378	30003
40°	28743	24219	23787
45°	28752	23299	20489
50°	28349	23757	19211
55°	27989	25782	18432
60°	27709	22591	17289
65°	27224	18315	15037
70°	25714	15588	10744
75°	22926	11753	8147
80°	18736	7634	7634
85°	11745	6910	5187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 28752 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.5	1.7
10°-20°	453.8	4.5
20°-30°	665.4	6.6
30°-40°	805.8	8.0
40°-50°	792.4	7.9
50°-60°	689.8	6.9
60°-70°	479.6	4.8
70°-80°	227.4	2.3
80°-90°	51.1	0.5
90°-100°	353.0	3.5
100°-110°	1156.0	11.5
110°-120°	1142.9	11.4
120°-130°	934.2	9.3
130°-140°	762.4	7.6
140°-150°	593.3	5.9
150°-160°	427.2	4.2
160°-170°	261.4	2.6
170°-180°	88.3	0.9
0°-30°	1291.7	12.8
0°-40°	2097.5	20.9
0°-60°	3579.6	35.6
0°-90°	4337.7	43.1
90°-120°	2651.9	26.4
90°-150°	4941.9	49.1
90°-180°	5719.0	56.9
0°-180°	10056.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1961	1961	1961	1961	1961	
5°	1964	1962	1847	1789	1785	185
15°	1869	1665	1533	1523	1543	521
25°	1660	1412	1388	1431	1425	764
35°	1457	1178	1237	1344	1522	913
45°	1259	933	1020	1056	897	968
55°	994	726	916	660	655	888
65°	713	499	479	394	394	700
75°	368	254	188	134	131	389
85°	63	42	37	30	28	85
90°	1	3	8	7	8	4
95°	50	144	642	229	149	56
105°	201	287	1148	2180	2071	212
115°	362	433	932	1926	2262	357
125°	504	562	919	1519	1784	448
135°	607	671	911	1310	1477	469
145°	709	762	909	1127	1235	445
155°	808	836	915	1008	1048	372
165°	883	891	919	954	965	249
175°	923	923	924	930	928	88
180°	926	926	926	926	926	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1960.6	1960.6	1960.6	1960.6	1960.6
2.5°	1956.1	1976.6	1930.8	1912.8	1909.9
5°	1964.3	1962.5	1846.8	1788.9	1785.3
7.5°	1928.5	1872.0	1733.8	1669.9	1667.0
10°	1897.2	1811.5	1662.1	1604.3	1604.3
12.5°	1889.7	1754.4	1603.9	1561.2	1570.0
15°	1869.2	1664.9	1533.4	1522.7	1542.7
17.5°	1801.3	1581.3	1478.6	1503.0	1526.3
20°	1753.5	1536.5	1445.7	1491.0	1512.9
22.5°	1713.2	1493.3	1421.9	1471.4	1483.0
25°	1660.3	1412.2	1387.9	1430.7	1425.2
27.5°	1596.8	1337.8	1354.0	1380.1	1383.4
30°	1552.1	1293.1	1322.6	1349.3	1373.0
32.5°	1508.8	1241.0	1288.3	1351.5	1405.8
35°	1456.9	1177.9	1236.8	1343.5	1522.2
37.5°	1402.5	1103.3	1184.9	1274.7	1331.6
40°	1363.7	1049.9	1149.1	1259.9	1128.6
42.5°	1321.9	1008.1	1095.4	1238.5	1016.7
45°	1259.2	932.7	1020.4	1056.0	897.3
47.5°	1185.3	874.1	969.7	880.6	818.6
50°	1128.6	834.9	945.8	805.0	764.8
52.5°	1073.4	794.3	929.4	742.6	715.6
55°	994.3	726.2	915.9	660.3	654.8
57.5°	910.3	656.8	810.0	588.6	598.1
60°	858.1	611.9	699.6	546.3	535.4
62.5°	802.9	568.3	596.6	492.6	481.7
65°	712.6	499.2	479.4	393.6	393.6
67.5°	613.4	427.3	388.4	322.1	278.3
70°	544.7	380.6	330.2	256.8	227.6
72.5°	471.6	330.8	270.5	210.4	176.8
75°	367.5	254.4	188.4	134.2	130.6
77.5°	265.6	183.2	126.9	99.6	100.0
80°	201.5	139.5	82.1	80.3	82.1
82.5°	141.8	95.8	61.2	63.8	64.2
85°	63.4	41.5	37.3	29.8	28.0
87.5°	13.6	12.5	9.0	8.8	9.0
90°	1.0	2.8	7.6	6.7	7.6
92.5°	16.2	59.0	181.3	59.0	47.2
95°	49.5	143.6	641.8	228.6	148.6
97.5°	89.9	189.3	1101.2	666.2	412.9
100°	118.1	213.0	1274.1	1137.8	754.2
102.5°	150.1	242.8	1255.1	1676.5	1299.6
105°	200.9	286.6	1147.5	2180.1	2071.1
107.5°	251.0	329.6	1042.5	2227.2	2346.9
110°	283.8	360.1	992.2	2172.4	2394.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	315.0	389.1	961.8	2077.0	2362.1
115°	361.9	432.6	932.3	1926.4	2261.6
117.5°	407.4	473.5	921.0	1778.3	2118.8
120°	437.1	499.5	918.0	1692.1	2023.5
122.5°	463.7	524.6	918.0	1617.6	1925.3
125°	503.7	561.5	918.9	1519.2	1784.5
127.5°	537.6	596.5	917.8	1446.6	1677.5
130°	559.0	618.6	917.0	1402.6	1611.2
132.5°	578.0	639.1	914.7	1364.9	1554.1
135°	606.6	670.8	911.3	1310.3	1476.9
137.5°	636.7	700.4	909.2	1253.3	1404.0
140°	658.0	719.5	908.4	1217.4	1359.8
142.5°	679.3	737.1	908.4	1179.0	1308.0
145°	709.4	761.6	909.4	1127.1	1235.1
147.5°	741.0	784.4	910.7	1081.9	1163.5
150°	760.8	799.0	912.3	1055.7	1124.6
152.5°	780.7	814.4	913.0	1034.1	1091.1
155°	808.5	835.5	915.1	1008.4	1047.5
157.5°	833.4	853.0	917.2	988.1	1016.4
160°	849.4	865.2	918.0	976.6	998.9
162.5°	863.1	876.0	918.0	967.3	983.7
165°	882.7	891.1	918.9	954.4	964.6
167.5°	899.3	903.4	920.1	944.4	950.0
170°	908.4	910.3	920.8	939.0	940.8
172.5°	915.3	916.4	923.1	935.1	935.5
175°	922.7	922.7	923.7	930.3	928.4
177.5°	926.5	925.8	925.0	929.5	926.5
180°	926.5	926.5	926.5	926.5	926.5

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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	18.66	19.46	19.68	20.48	21.85	17.33	18.13	18.35	19.15	20.52
	3H	20.68	21.39	21.71	22.43	23.81	18.36	19.08	19.39	20.11	21.49
	4H	21.41	22.08	22.45	23.12	24.51	18.57	19.25	19.61	20.28	21.68
	6H	21.89	22.51	22.94	23.55	24.96	18.71	19.34	19.76	20.38	21.78
	8H	22.01	22.60	23.07	23.66	25.06	18.75	19.34	19.80	20.39	21.79
	12H	22.06	22.62	23.11	23.67	25.09	18.74	19.30	19.80	20.35	21.78
4H	2H	19.03	19.70	20.07	20.74	22.13	17.97	18.64	19.01	19.68	21.07
	3H	21.13	21.69	22.18	22.75	24.16	19.14	19.70	20.19	20.77	22.17
	4H	21.94	22.45	23.00	23.51	24.94	19.41	19.93	20.47	20.98	22.41
	6H	22.52	22.96	23.59	24.04	25.47	19.62	20.06	20.69	21.14	22.56
	8H	22.69	23.10	23.76	24.17	25.61	19.67	20.08	20.74	21.16	22.60
	12H	22.75	23.13	23.84	24.21	25.66	19.68	20.05	20.77	21.13	22.58
8H	4H	21.95	22.36	23.02	23.43	24.87	19.62	20.04	20.69	21.11	22.55
	6H	22.60	22.94	23.69	24.05	25.49	19.89	20.23	20.99	21.35	22.78
	8H	22.83	23.12	23.93	24.22	25.68	20.00	20.29	21.10	21.39	22.85
	12H	22.94	23.20	24.04	24.29	25.79	20.04	20.30	21.14	21.39	22.89
12H	4H	21.90	22.27	22.99	23.36	24.80	19.62	19.99	20.71	21.07	22.52
	6H	22.58	22.87	23.67	23.97	25.43	19.92	20.22	21.02	21.32	22.77
	8H	22.81	23.07	23.91	24.16	25.65	20.04	20.30	21.14	21.39	22.88