

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: P855147

Luminaire Tested: SQ2-PH1-150U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855147
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-125D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

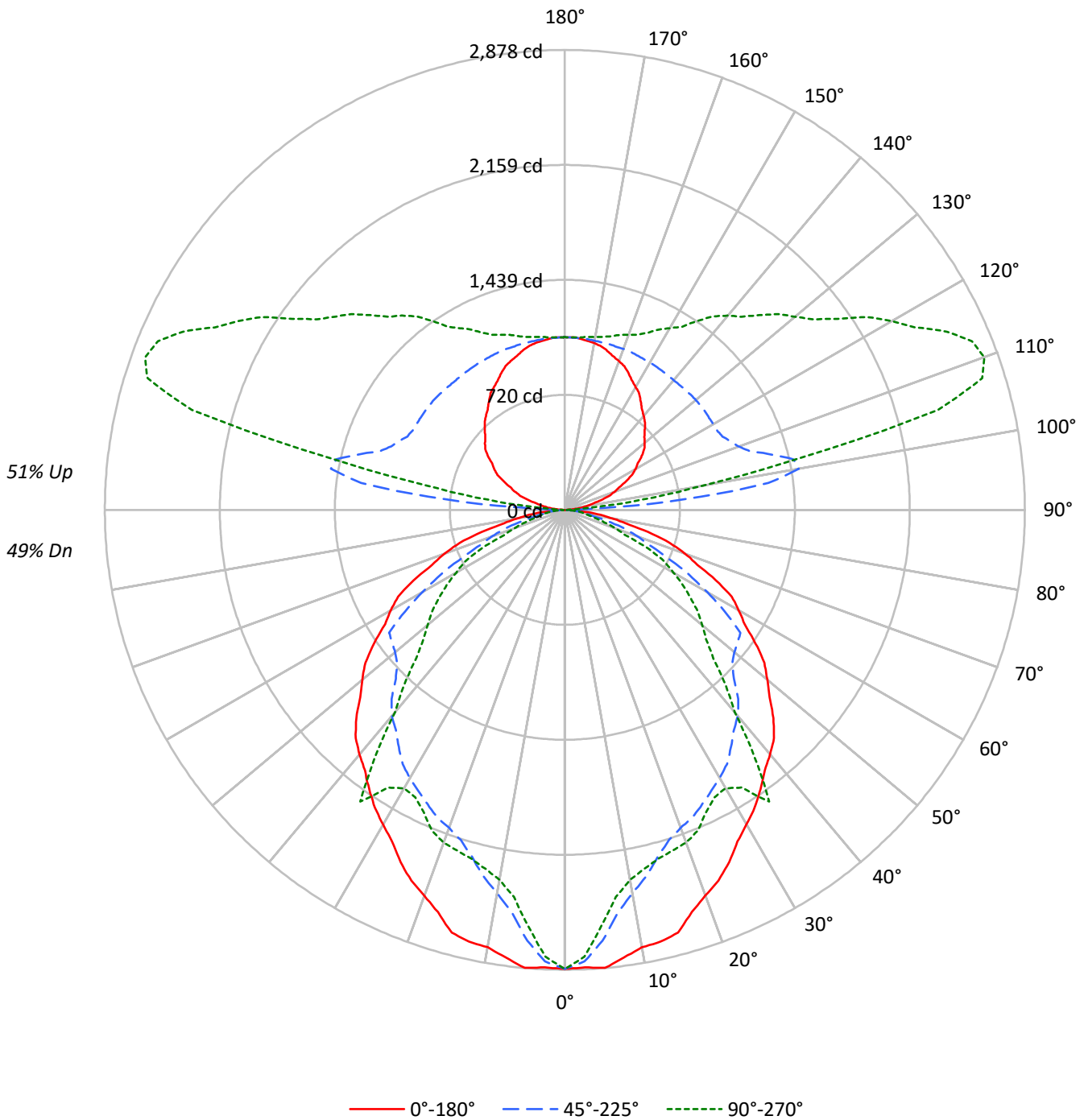
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13025.5 lumens
Efficiency: N/A
Efficacy: 123.1 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): 105.8
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	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	98	94	90	86	90	86	83	80	73	70	68	60	59	57	49	48	47	42
2	89	82	76	71	82	76	70	66	64	60	57	53	50	48	43	41	40	35
3	81	72	65	59	75	67	60	55	57	52	48	47	44	41	38	36	34	30
4	74	64	56	50	68	59	52	47	50	45	41	42	38	35	34	32	29	26
5	68	57	49	43	63	53	46	40	45	39	35	38	34	30	31	28	26	22
6	63	51	43	37	58	47	40	35	41	35	31	34	30	27	28	25	23	20
7	58	46	38	33	54	43	36	31	37	31	27	31	27	24	26	22	20	17
8	54	42	34	29	50	39	32	27	33	28	24	28	24	21	24	20	18	16
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	46377	46377	46377
5°	46644	43853	42391
10°	45570	39923	38535
15°	45775	37553	37782
20°	44142	36393	38084
25°	43333	36225	37198
30°	42394	36126	37502
35°	42072	35715	43958
40°	42107	35485	34851
45°	42124	34134	30015
50°	41533	34804	28148
55°	41005	37774	27004
60°	40597	33093	25330
65°	39889	26835	22032
70°	37671	22839	15739
75°	33587	17218	11940
80°	27438	11186	11186
85°	17210	10133	7595

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 42124 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.7	1.9
10°-20°	664.8	5.1
20°-30°	974.8	7.5
30°-40°	1180.5	9.1
40°-50°	1160.9	8.9
50°-60°	1010.6	7.8
60°-70°	702.6	5.4
70°-80°	333.1	2.6
80°-90°	74.6	0.6
90°-100°	411.8	3.2
100°-110°	1348.5	10.4
110°-120°	1333.2	10.2
120°-130°	1089.8	8.4
130°-140°	889.3	6.8
140°-150°	692.1	5.3
150°-160°	498.3	3.8
160°-170°	304.9	2.3
170°-180°	103.0	0.8
0°-30°	1892.4	14.5
0°-40°	3072.9	23.6
0°-60°	5244.4	40.3
0°-90°	6354.7	48.8
90°-120°	3093.4	23.7
90°-150°	5764.6	44.3
90°-180°	6671.0	51.2
0°-180°	13025.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2872	2872	2872	2872	2872	
5°	2878	2875	2706	2621	2616	271
15°	2738	2439	2247	2231	2260	763
25°	2432	2069	2033	2096	2088	1119
35°	2134	1726	1812	1968	2230	1337
45°	1845	1366	1495	1547	1314	1418
55°	1457	1064	1342	967	959	1301
65°	1044	731	702	577	577	1026
75°	538	373	276	197	191	571
85°	93	61	55	44	41	125
90°	1	3	9	8	9	6
95°	58	168	749	267	173	65
105°	234	334	1338	2543	2416	247
115°	422	505	1087	2247	2638	417
125°	588	655	1072	1772	2082	523
135°	708	782	1063	1528	1723	547
145°	828	888	1061	1315	1441	519
155°	943	975	1068	1176	1222	434
165°	1030	1039	1072	1113	1125	290
175°	1076	1076	1078	1085	1083	102
180°	1081	1081	1081	1081	1081	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2872.4	2872.4	2872.4	2872.4	2872.4
2.5°	2865.8	2895.8	2828.7	2802.3	2798.0
5°	2877.9	2875.2	2705.7	2620.8	2615.5
7.5°	2825.4	2742.6	2540.1	2446.5	2442.2
10°	2779.5	2653.9	2435.1	2350.4	2350.4
12.5°	2768.6	2570.2	2349.9	2287.3	2300.1
15°	2738.5	2439.2	2246.6	2230.8	2260.3
17.5°	2639.0	2316.7	2166.2	2202.0	2236.2
20°	2569.1	2251.0	2118.1	2184.5	2216.5
22.5°	2510.0	2187.7	2083.2	2155.7	2172.8
25°	2432.4	2069.0	2033.4	2096.1	2088.0
27.5°	2339.5	1960.0	1983.6	2022.1	2026.8
30°	2273.9	1894.4	1937.7	1976.8	2011.5
32.5°	2210.5	1818.1	1887.4	1980.0	2059.6
35°	2134.5	1725.7	1812.0	1968.3	2230.2
37.5°	2054.6	1616.5	1736.0	1867.5	1950.9
40°	1997.8	1538.2	1683.6	1845.9	1653.5
42.5°	1936.6	1476.9	1604.8	1814.4	1489.5
45°	1844.8	1366.5	1494.9	1547.1	1314.5
47.5°	1736.5	1280.7	1420.6	1290.1	1199.2
50°	1653.5	1223.2	1385.6	1179.3	1120.6
52.5°	1572.6	1163.7	1361.6	1088.0	1048.4
55°	1456.7	1063.9	1341.9	967.3	959.3
57.5°	1333.7	962.3	1186.7	862.3	876.2
60°	1257.2	896.4	1024.8	800.4	784.4
62.5°	1176.3	832.7	874.0	721.7	705.7
65°	1044.1	731.4	702.4	576.7	576.7
67.5°	898.7	626.0	569.0	471.9	407.7
70°	798.0	557.6	483.8	376.2	333.4
72.5°	690.9	484.6	396.3	308.3	259.0
75°	538.4	372.8	276.0	196.7	191.4
77.5°	389.2	268.4	185.8	146.0	146.4
80°	295.1	204.3	120.3	117.6	120.3
82.5°	207.7	140.3	89.6	93.5	94.0
85°	92.9	60.9	54.7	43.7	41.0
87.5°	19.9	18.2	12.7	12.4	12.7
90°	1.1	3.3	8.9	7.8	8.9
92.5°	18.9	68.8	211.5	68.8	55.1
95°	57.7	167.5	748.7	266.7	173.3
97.5°	104.9	220.9	1284.6	777.0	481.6
100°	137.7	248.5	1486.2	1327.2	879.8
102.5°	175.1	283.3	1464.0	1955.6	1516.0
105°	234.4	334.3	1338.5	2543.1	2416.0
107.5°	292.8	384.4	1216.1	2598.0	2737.6
110°	331.0	420.1	1157.5	2534.0	2793.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	367.5	453.9	1121.9	2422.9	2755.4
115°	422.1	504.6	1087.4	2247.1	2638.1
117.5°	475.2	552.3	1074.4	2074.5	2471.4
120°	509.8	582.6	1070.8	1973.7	2360.4
122.5°	540.9	612.0	1070.8	1886.9	2245.8
125°	587.6	654.9	1071.9	1772.1	2081.6
127.5°	627.2	695.7	1070.6	1687.4	1956.8
130°	652.1	721.5	1069.6	1636.2	1879.5
132.5°	674.2	745.5	1067.0	1592.1	1812.8
135°	707.5	782.5	1063.0	1528.4	1722.8
137.5°	742.7	816.9	1060.6	1462.0	1637.7
140°	767.6	839.2	1059.7	1420.0	1586.3
142.5°	792.4	859.7	1059.7	1375.2	1525.8
145°	827.6	888.4	1060.8	1314.7	1440.7
147.5°	864.4	915.1	1062.4	1262.0	1357.2
150°	887.6	932.0	1064.1	1231.5	1311.8
152.5°	910.6	949.9	1065.0	1206.2	1272.8
155°	943.0	974.6	1067.5	1176.3	1221.9
157.5°	972.2	995.0	1069.9	1152.6	1185.6
160°	990.8	1009.3	1070.8	1139.1	1165.2
162.5°	1006.8	1021.8	1070.8	1128.3	1147.4
165°	1029.7	1039.4	1071.9	1113.3	1125.2
167.5°	1049.1	1053.8	1073.3	1101.6	1108.1
170°	1059.7	1061.8	1074.2	1095.3	1097.5
172.5°	1067.7	1069.0	1076.8	1090.8	1091.3
175°	1076.3	1076.3	1077.5	1085.2	1083.0
177.5°	1080.7	1079.9	1079.0	1084.2	1080.7
180°	1080.7	1080.7	1080.7	1080.7	1080.7



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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	20.54	21.39	21.51	22.37	23.66	19.22	20.06	20.19	21.04	22.33
	3H	22.57	23.32	23.55	24.31	25.63	20.25	21.01	21.23	22.00	23.31
	4H	23.30	24.01	24.29	25.01	26.33	20.46	21.18	21.46	22.17	23.49
	6H	23.78	24.44	24.79	25.44	26.77	20.61	21.26	21.61	22.26	23.60
	8H	23.91	24.53	24.92	25.55	26.88	20.64	21.26	21.65	22.28	23.61
	12H	23.95	24.55	24.97	25.56	26.91	20.64	21.23	21.65	22.24	23.59
4H	2H	20.92	21.63	21.92	22.63	23.95	19.86	20.57	20.86	21.57	22.89
	3H	23.02	23.62	24.03	24.64	25.97	21.04	21.63	22.04	22.65	23.99
	4H	23.84	24.38	24.85	25.40	26.75	21.31	21.85	22.33	22.87	24.23
	6H	24.42	24.89	25.45	25.93	27.28	21.52	21.98	22.55	23.02	24.38
	8H	24.59	25.03	25.62	26.06	27.43	21.57	22.01	22.60	23.04	24.41
	12H	24.66	25.05	25.70	26.10	27.47	21.58	21.97	22.63	23.02	24.39
8H	4H	23.85	24.29	24.88	25.32	26.69	21.52	21.96	22.55	22.99	24.36
	6H	24.50	24.86	25.56	25.94	27.30	21.80	22.16	22.85	23.23	24.60
	8H	24.73	25.05	25.79	26.11	27.49	21.90	22.21	22.96	23.27	24.66
	12H	24.84	25.12	25.91	26.17	27.60	21.94	22.22	23.01	23.27	24.70
12H	4H	23.80	24.20	24.85	25.25	26.62	21.52	21.91	22.57	22.96	24.33
	6H	24.48	24.79	25.54	25.85	27.24	21.83	22.14	22.89	23.20	24.59
	8H	24.71	24.99	25.77	26.04	27.47	21.94	22.22	23.01	23.27	24.70