

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: P855091

Luminaire Tested: SQ2-PR1-150U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855091
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-150U-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

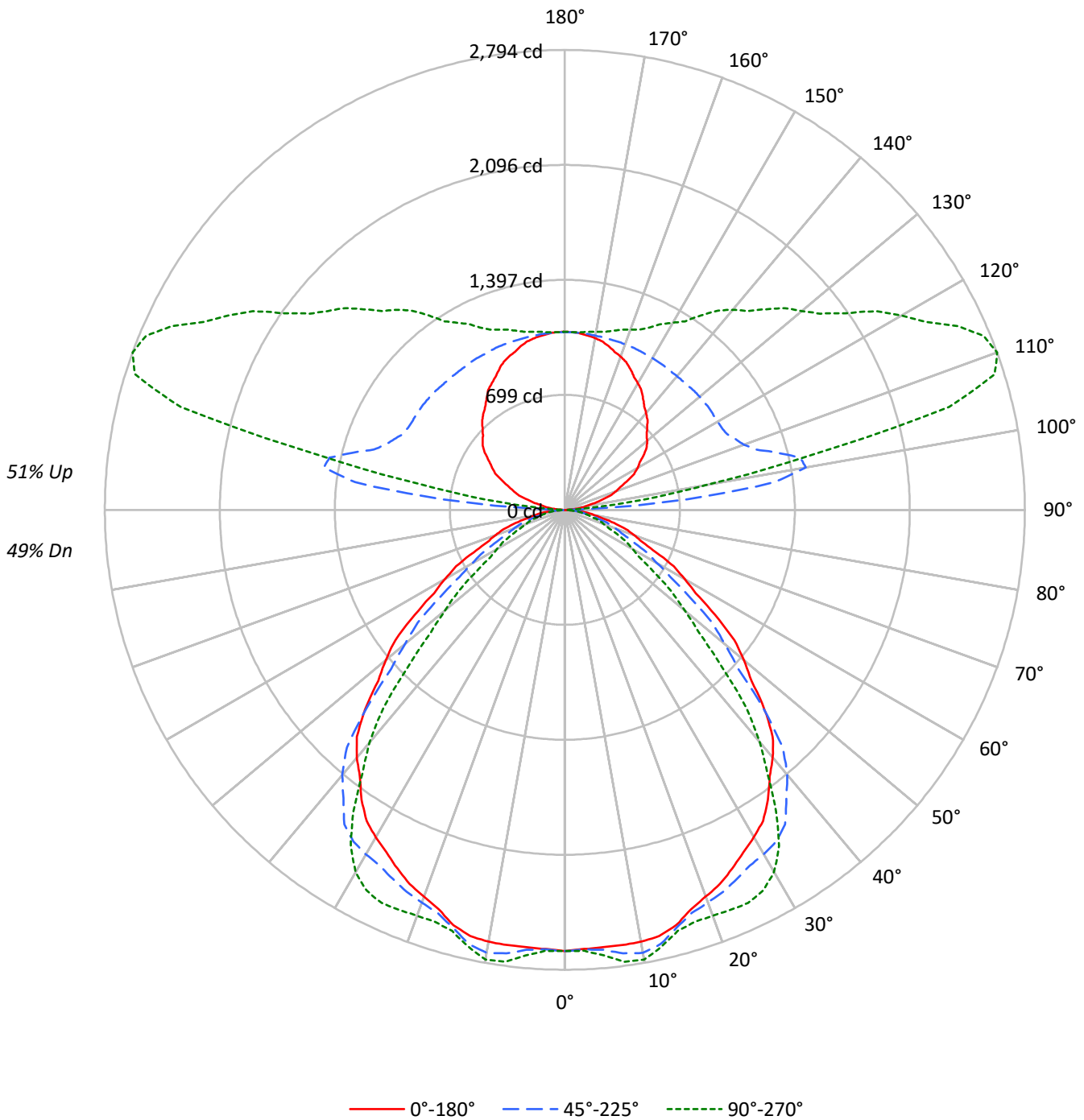
Lumens per Lamp: N/A
Luminaire Lumens: 13121.8 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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	99	99	99	99	83	83	83	69	69	69	55	55	55	49
1	98	94	91	87	90	87	84	81	74	71	69	61	60	58	50	49	48	43
2	90	83	77	72	83	77	72	67	65	62	58	55	52	50	45	43	41	37
3	82	73	66	61	76	68	62	57	58	53	50	49	45	43	40	38	36	32
4	76	65	58	52	70	61	54	49	52	47	43	44	40	37	36	33	31	28
5	70	58	51	45	64	54	47	42	47	41	37	39	35	32	33	30	28	24
6	64	53	45	39	59	49	42	37	42	37	33	36	32	29	30	27	24	22
7	59	47	40	34	55	44	37	33	38	33	29	33	28	25	27	24	22	19
8	55	43	36	30	51	40	34	29	35	30	26	30	26	23	25	22	20	17
9	51	39	32	27	47	37	30	26	32	27	23	28	23	20	23	20	18	16
10	48	36	29	24	44	34	28	23	30	24	21	25	21	19	22	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	43289	43289	43289
5°	43232	43499	44031
10°	43688	44809	45479
15°	43674	43903	44267
20°	42969	43625	45082
25°	42845	44064	46935
30°	42800	45043	47386
35°	42393	46006	44118
40°	41416	44297	38824
45°	39192	38879	30702
50°	35628	31785	23820
55°	31311	26156	18539
60°	27093	20919	15268
65°	23389	17333	13364
70°	21031	15352	11873
75°	19264	13300	10917
80°	16774	10674	10674
85°	12153	9615	5076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 42361 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.9	2.0
10°-20°	749.5	5.7
20°-30°	1158.6	8.8
30°-40°	1393.5	10.6
40°-50°	1251.2	9.5
50°-60°	838.3	6.4
60°-70°	487.6	3.7
70°-80°	250.4	1.9
80°-90°	63.0	0.5
90°-100°	411.8	3.1
100°-110°	1348.5	10.3
110°-120°	1333.2	10.2
120°-130°	1089.8	8.3
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°	2167.0	16.5
0°-40°	3560.5	27.1
0°-60°	5650.0	43.1
0°-90°	6450.9	49.2
90°-120°	3093.4	23.6
90°-150°	5764.6	43.9
90°-180°	6671.0	50.8
0°-180°	13121.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2681	2681	2681	2681	2681	
5°	2667	2713	2684	2690	2717	255
15°	2613	2720	2626	2635	2648	734
25°	2405	2501	2473	2565	2635	1109
35°	2151	2170	2334	2289	2238	1341
45°	1716	1855	1703	1436	1345	1313
55°	1112	1155	929	718	659	1000
65°	612	626	454	369	350	619
75°	309	301	213	180	175	328
85°	66	52	52	35	27	81
90°	1	3	9	8	9	5
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°	2681.1	2681.1	2681.1	2681.1	2681.1
2.5°	2670.2	2702.2	2672.3	2674.7	2681.1
5°	2667.4	2712.8	2683.9	2690.0	2716.7
7.5°	2666.9	2731.6	2717.7	2734.3	2769.6
10°	2664.7	2742.2	2733.1	2736.6	2774.0
12.5°	2651.6	2741.9	2700.3	2696.9	2717.1
15°	2612.8	2719.6	2626.5	2635.0	2648.3
17.5°	2544.4	2656.1	2567.4	2597.5	2623.8
20°	2500.8	2610.3	2539.0	2578.3	2623.8
22.5°	2461.4	2570.9	2512.7	2567.7	2630.3
25°	2405.0	2501.3	2473.4	2565.1	2634.6
27.5°	2346.1	2402.6	2435.7	2558.7	2607.4
30°	2295.7	2333.2	2416.0	2523.0	2541.7
32.5°	2241.0	2263.6	2389.7	2445.5	2421.4
35°	2150.8	2169.6	2334.1	2289.1	2238.3
37.5°	2043.8	2082.3	2208.8	2079.7	2021.4
40°	1965.0	2029.2	2101.7	1908.9	1842.0
42.5°	1868.8	1971.5	1959.6	1713.9	1632.2
45°	1716.4	1855.2	1702.7	1435.5	1344.6
47.5°	1536.5	1679.2	1429.4	1190.7	1105.7
50°	1418.4	1533.4	1265.4	1041.9	948.3
52.5°	1298.2	1381.1	1125.4	902.2	817.2
55°	1112.3	1155.1	929.2	717.5	658.6
57.5°	941.8	969.0	759.2	579.5	536.2
60°	839.0	857.8	647.8	507.6	472.8
62.5°	745.0	759.5	558.1	446.6	420.3
65°	612.2	625.6	453.7	368.6	349.8
67.5°	506.8	513.7	373.3	306.2	288.6
70°	445.5	448.1	325.2	264.8	251.5
72.5°	390.9	387.0	279.3	230.0	220.8
75°	308.8	300.8	213.2	180.3	175.0
77.5°	230.6	222.1	149.7	138.9	138.9
80°	180.4	169.6	114.8	114.8	114.8
82.5°	134.4	119.5	88.5	88.5	86.3
85°	65.6	52.3	51.9	35.3	27.4
87.5°	17.8	18.1	8.4	8.1	8.4
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	19.79	20.61	20.77	21.59	22.87	16.52	17.33	17.49	18.31	19.60
	3H	21.02	21.75	22.01	22.74	24.05	17.58	18.31	18.56	19.30	20.61
	4H	21.47	22.16	22.47	23.15	24.47	17.98	18.66	18.98	19.66	20.98
	6H	21.79	22.42	22.79	23.42	24.75	18.31	18.94	19.31	19.94	21.27
	8H	21.87	22.47	22.88	23.48	24.81	18.39	18.99	19.41	20.01	21.33
	12H	21.90	22.47	22.91	23.47	24.82	18.40	18.97	19.42	19.98	21.33
4H	2H	19.86	20.55	20.87	21.55	22.86	17.08	17.77	18.08	18.76	20.08
	3H	21.33	21.90	22.34	22.92	24.25	18.34	18.91	19.36	19.93	21.27
	4H	21.93	22.44	22.95	23.46	24.81	18.85	19.37	19.87	20.38	21.74
	6H	22.38	22.82	23.41	23.86	25.21	19.28	19.73	20.31	20.77	22.12
	8H	22.51	22.92	23.54	23.95	25.32	19.40	19.82	20.43	20.85	22.22
	12H	22.56	22.93	23.61	23.98	25.35	19.42	19.80	20.47	20.84	22.21
8H	4H	21.95	22.36	22.98	23.40	24.76	19.15	19.57	20.18	20.60	21.96
	6H	22.50	22.84	23.55	23.91	25.28	19.68	20.03	20.74	21.10	22.46
	8H	22.69	23.00	23.76	24.05	25.44	19.87	20.17	20.93	21.23	22.61
	12H	22.80	23.06	23.86	24.12	25.54	19.93	20.20	20.99	21.25	22.67
12H	4H	21.90	22.28	22.95	23.33	24.70	19.16	19.54	20.21	20.59	21.96
	6H	22.48	22.78	23.54	23.84	25.22	19.74	20.05	20.81	21.10	22.49
	8H	22.69	22.96	23.76	24.01	25.44	19.95	20.22	21.01	21.27	22.69