

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: P854884

Luminaire Tested: SQ2-PR1-150U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854884
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-830-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

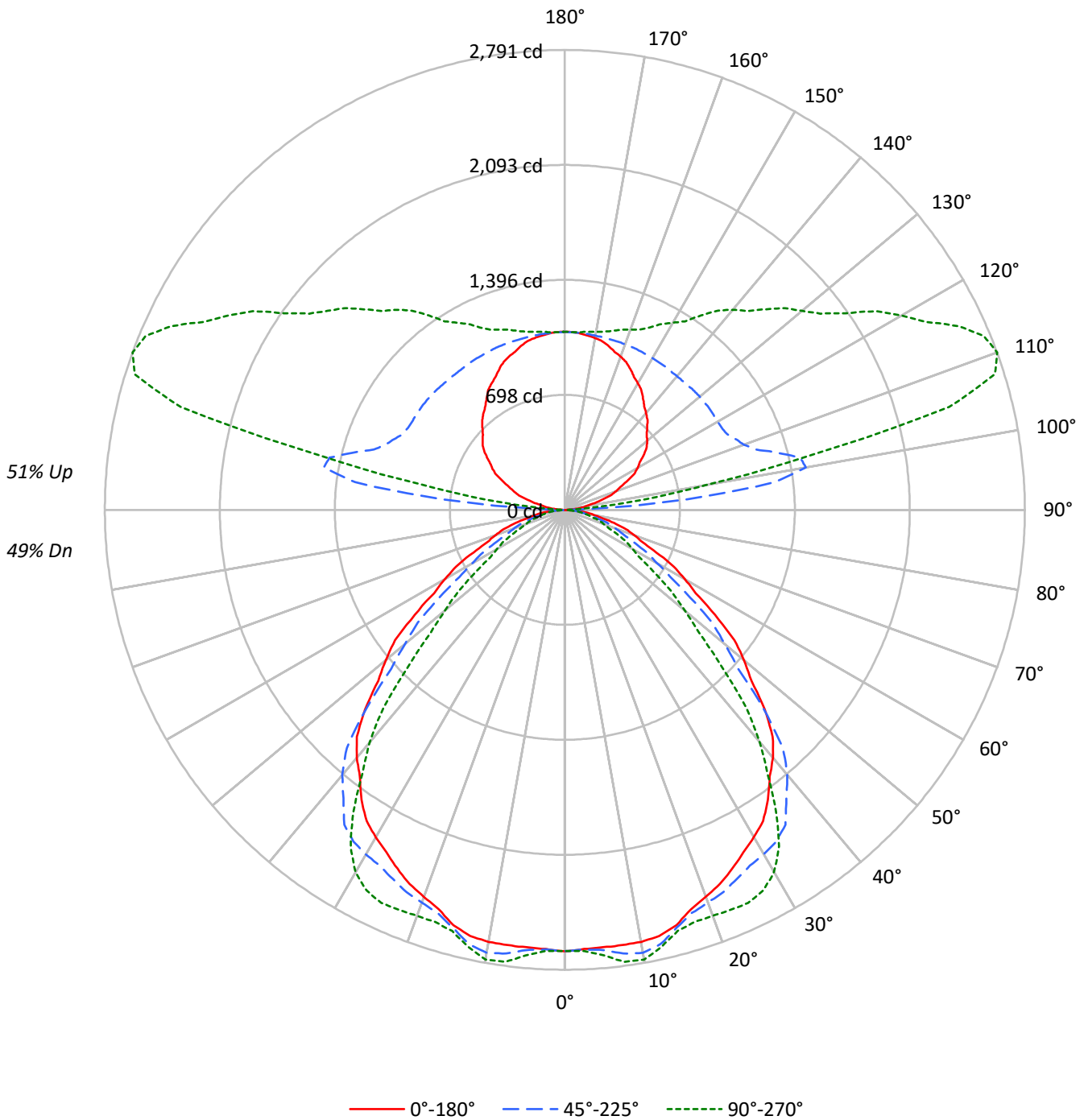
Lumens per Lamp: N/A
Luminaire Lumens: 13109.9 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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°	43250	43250	43250
5°	43193	43459	43990
10°	43648	44768	45439
15°	43634	43863	44227
20°	42929	43586	45041
25°	42806	44023	46893
30°	42761	45002	47344
35°	42356	45965	44078
40°	41378	44257	38788
45°	39155	38845	30675
50°	35595	31757	23800
55°	31282	26134	18522
60°	27070	20899	15255
65°	23370	17318	13352
70°	21012	15338	11858
75°	19251	13288	10905
80°	16755	10656	10656
85°	12153	9615	5076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 42324 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.7	2.0
10°-20°	748.8	5.7
20°-30°	1157.5	8.8
30°-40°	1392.3	10.6
40°-50°	1250.1	9.5
50°-60°	837.5	6.4
60°-70°	487.1	3.7
70°-80°	250.2	1.9
80°-90°	62.9	0.5
90°-100°	411.4	3.1
100°-110°	1347.2	10.3
110°-120°	1332.0	10.2
120°-130°	1088.8	8.3
130°-140°	888.5	6.8
140°-150°	691.5	5.3
150°-160°	497.9	3.8
160°-170°	304.6	2.3
170°-180°	102.9	0.8
0°-30°	2165.0	16.5
0°-40°	3557.3	27.1
0°-60°	5644.9	43.1
0°-90°	6445.1	49.2
90°-120°	3090.6	23.6
90°-150°	5759.4	43.9
90°-180°	6665.0	50.8
0°-180°	13109.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2679	2679	2679	2679	2679	
5°	2665	2710	2681	2688	2714	254
15°	2610	2717	2624	2633	2646	733
25°	2403	2499	2471	2563	2632	1108
35°	2149	2168	2332	2287	2236	1340
45°	1715	1854	1701	1434	1343	1312
55°	1111	1154	928	717	658	999
65°	612	625	453	368	350	619
75°	309	300	213	180	175	327
85°	66	52	52	35	27	81
90°	1	3	9	8	9	5
95°	58	167	748	266	173	65
105°	234	334	1337	2541	2414	247
115°	422	504	1086	2245	2636	417
125°	587	654	1071	1770	2080	522
135°	707	782	1062	1527	1721	547
145°	827	888	1060	1314	1439	518
155°	942	974	1066	1175	1221	434
165°	1029	1038	1071	1112	1124	290
175°	1075	1075	1076	1084	1082	102
180°	1080	1080	1080	1080	1080	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2678.7	2678.7	2678.7	2678.7	2678.7
2.5°	2667.8	2699.7	2669.9	2672.3	2678.7
5°	2665.0	2710.4	2681.4	2687.5	2714.2
7.5°	2664.5	2729.1	2715.2	2731.9	2767.1
10°	2662.3	2739.8	2730.6	2734.1	2771.5
12.5°	2649.2	2739.4	2697.8	2694.4	2714.7
15°	2610.4	2717.2	2624.1	2632.6	2645.9
17.5°	2542.1	2653.7	2565.1	2595.2	2621.4
20°	2498.5	2607.9	2536.7	2575.9	2621.4
22.5°	2459.1	2568.6	2510.5	2565.4	2628.0
25°	2402.8	2499.1	2471.1	2562.8	2632.2
27.5°	2343.9	2400.5	2433.5	2556.4	2605.0
30°	2293.6	2331.0	2413.8	2520.8	2539.4
32.5°	2239.0	2261.5	2387.6	2443.3	2419.2
35°	2148.9	2167.7	2332.0	2287.1	2236.3
37.5°	2041.9	2080.4	2206.8	2077.8	2019.6
40°	1963.2	2027.4	2099.8	1907.2	1840.3
42.5°	1867.1	1969.7	1957.8	1712.4	1630.7
45°	1714.8	1853.6	1701.2	1434.2	1343.4
47.5°	1535.1	1677.6	1428.1	1189.7	1104.8
50°	1417.1	1532.0	1264.3	1041.0	947.5
52.5°	1297.1	1379.8	1124.4	901.3	816.4
55°	1111.3	1154.0	928.4	716.8	658.0
57.5°	940.9	968.2	758.5	579.0	535.7
60°	838.3	857.0	647.2	507.1	472.4
62.5°	744.3	758.8	557.6	446.2	419.9
65°	611.7	625.0	453.3	368.3	349.5
67.5°	506.3	513.2	373.0	306.0	288.3
70°	445.1	447.7	324.9	264.6	251.2
72.5°	390.5	386.7	279.0	229.7	220.6
75°	308.6	300.5	213.0	180.1	174.8
77.5°	230.4	221.9	149.6	138.7	138.7
80°	180.2	169.5	114.6	114.6	114.6
82.5°	134.3	119.4	88.4	88.4	86.3
85°	65.6	52.2	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	68.7	211.3	68.7	55.1
95°	57.7	167.3	748.0	266.5	173.1
97.5°	104.8	220.7	1283.4	776.3	481.2
100°	137.6	248.3	1484.9	1326.0	879.0
102.5°	174.9	283.0	1462.7	1953.9	1514.6
105°	234.2	334.0	1337.3	2540.8	2413.8
107.5°	292.5	384.1	1215.0	2595.6	2735.1
110°	330.7	419.7	1156.4	2531.7	2791.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	367.1	453.5	1120.9	2420.7	2752.9
115°	421.7	504.2	1086.4	2245.1	2635.8
117.5°	474.8	551.8	1073.4	2072.6	2469.2
120°	509.4	582.1	1069.8	1972.0	2358.3
122.5°	540.4	611.5	1069.8	1885.2	2243.8
125°	587.0	654.3	1070.9	1770.5	2079.7
127.5°	626.6	695.1	1069.6	1685.9	1955.0
130°	651.5	720.9	1068.7	1634.7	1877.8
132.5°	673.6	744.9	1066.1	1590.7	1811.2
135°	706.9	781.8	1062.0	1527.0	1721.3
137.5°	742.0	816.2	1059.6	1460.7	1636.3
140°	766.9	838.5	1058.7	1418.7	1584.8
142.5°	791.7	858.9	1058.7	1374.0	1524.4
145°	826.8	887.6	1059.9	1313.5	1439.4
147.5°	863.6	914.2	1061.4	1260.9	1356.0
150°	886.8	931.2	1063.1	1230.4	1310.6
152.5°	909.8	949.1	1064.0	1205.2	1271.6
155°	942.2	973.7	1066.5	1175.2	1220.8
157.5°	971.3	994.1	1068.9	1151.6	1184.6
160°	989.9	1008.4	1069.8	1138.1	1164.1
162.5°	1005.9	1020.9	1069.8	1127.3	1146.4
165°	1028.8	1038.5	1070.9	1112.3	1124.2
167.5°	1048.1	1052.9	1072.3	1100.6	1107.1
170°	1058.7	1060.9	1073.2	1094.3	1096.5
172.5°	1066.8	1068.0	1075.8	1089.8	1090.3
175°	1075.4	1075.4	1076.5	1084.2	1082.0
177.5°	1079.8	1079.0	1078.1	1083.3	1079.8
180°	1079.8	1079.8	1079.8	1079.8	1079.8



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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	19.79	20.60	20.76	21.58	22.87	16.51	17.33	17.49	18.31	19.60
	3H	21.02	21.75	22.00	22.74	24.04	17.58	18.30	18.56	19.29	20.60
	4H	21.47	22.16	22.47	23.15	24.47	17.97	18.66	18.97	19.65	20.97
	6H	21.78	22.41	22.79	23.41	24.74	18.30	18.93	19.31	19.93	21.26
	8H	21.86	22.46	22.88	23.48	24.81	18.39	18.99	19.40	20.00	21.33
	12H	21.89	22.46	22.91	23.47	24.82	18.39	18.96	19.41	19.97	21.32
4H	2H	19.86	20.55	20.87	21.54	22.86	17.08	17.76	18.08	18.76	20.07
	3H	21.33	21.90	22.34	22.92	24.25	18.34	18.91	19.35	19.93	21.26
	4H	21.92	22.44	22.94	23.46	24.81	18.84	19.36	19.86	20.38	21.73
	6H	22.37	22.82	23.40	23.86	25.21	19.28	19.72	20.31	20.76	22.11
	8H	22.50	22.92	23.54	23.95	25.32	19.40	19.81	20.43	20.85	22.21
	12H	22.56	22.93	23.60	23.98	25.35	19.42	19.79	20.47	20.84	22.21
8H	4H	21.95	22.36	22.98	23.39	24.76	19.15	19.56	20.18	20.59	21.96
	6H	22.49	22.84	23.55	23.91	25.27	19.68	20.02	20.73	21.10	22.46
	8H	22.69	22.99	23.75	24.05	25.43	19.86	20.17	20.93	21.23	22.61
	12H	22.79	23.06	23.86	24.11	25.54	19.93	20.19	20.99	21.24	22.67
12H	4H	21.90	22.28	22.95	23.32	24.69	19.16	19.54	20.21	20.58	21.95
	6H	22.48	22.78	23.54	23.84	25.22	19.74	20.04	20.80	21.10	22.48
	8H	22.69	22.96	23.75	24.01	25.43	19.94	20.21	21.01	21.26	22.69