

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: P854856

Luminaire Tested: SQ2-PW1-150U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854856
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-150U-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

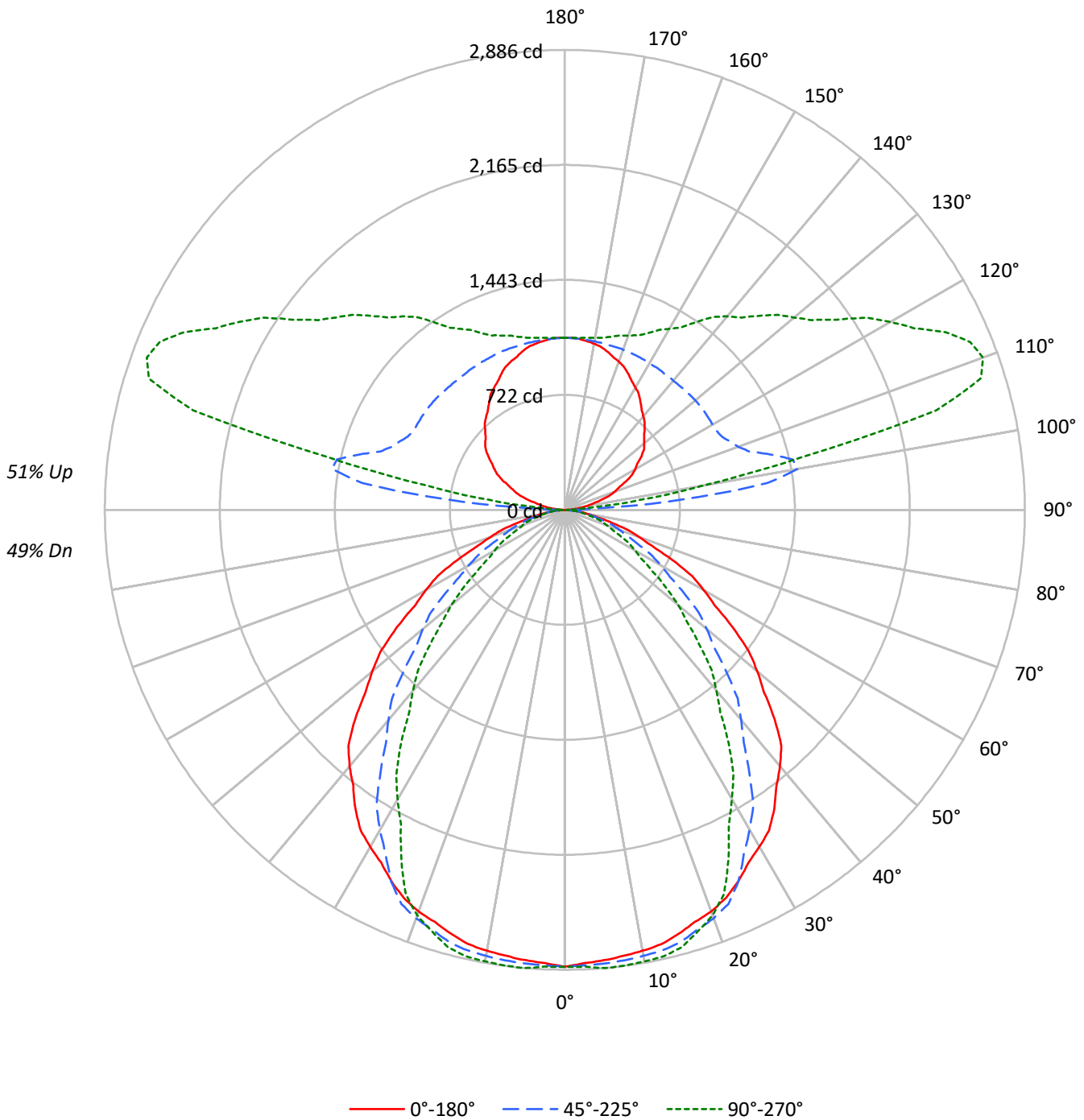
Lumens per Lamp: N/A
Luminaire Lumens: 13027.6 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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	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	87	90	87	84	81	73	71	69	61	59	58	50	49	48	42				
2	90	83	77	72	83	77	72	67	65	61	58	54	52	49	44	43	41	36				
3	82	73	66	61	76	68	62	57	58	53	49	48	45	42	40	37	35	31				
4	75	65	58	52	69	60	54	49	52	47	43	43	40	37	36	33	31	27				
5	69	58	50	45	64	54	47	42	46	41	37	39	35	32	33	30	27	24				
6	64	52	45	39	59	49	42	37	42	37	33	36	32	28	30	27	24	21				
7	59	47	40	34	55	44	37	33	38	33	29	33	28	25	27	24	22	19				
8	55	43	36	31	51	40	34	29	35	30	26	30	26	23	25	22	20	17				
9	51	40	32	27	48	37	30	26	32	27	23	28	23	21	23	20	18	16				
10	48	36	29	25	44	34	28	23	30	25	21	26	21	19	22	19	16	14				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	46292	46292	46292
5°	45982	46336	46778
10°	46066	46603	47186
15°	46054	46920	47468
20°	46072	46869	46541
25°	45824	45872	43246
30°	45513	43221	39098
35°	45155	39774	35307
40°	44257	36259	31194
45°	42523	32609	27247
50°	39577	29150	23320
55°	36203	25748	18908
60°	32447	22394	16314
65°	28374	19301	14502
70°	23202	17146	13147
75°	18054	14816	12096
80°	13454	12701	10656
85°	9114	9615	6076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 42523 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.0	2.1
10°-20°	791.0	6.1
20°-30°	1164.1	8.9
30°-40°	1272.7	9.8
40°-50°	1141.8	8.8
50°-60°	851.7	6.5
60°-70°	538.2	4.1
70°-80°	266.6	2.0
80°-90°	63.6	0.5
90°-100°	411.4	3.2
100°-110°	1347.2	10.3
110°-120°	1332.0	10.2
120°-130°	1088.8	8.4
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°	2228.1	17.1
0°-40°	3500.9	26.9
0°-60°	5494.3	42.2
0°-90°	6362.8	48.8
90°-120°	3090.6	23.7
90°-150°	5759.4	44.2
90°-180°	6665.0	51.2
0°-180°	13027.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2867	2867	2867	2867	2867	
5°	2837	2882	2859	2862	2886	270
15°	2755	2808	2807	2826	2840	778
25°	2572	2628	2575	2468	2428	1185
35°	2291	2267	2018	1842	1791	1429
45°	1862	1713	1428	1249	1193	1428
55°	1286	1163	915	717	672	1148
65°	743	681	505	406	380	736
75°	289	311	238	199	194	319
85°	49	62	52	35	33	62
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°	2867.1	2867.1	2867.1	2867.1	2867.1
2.5°	2847.4	2883.7	2860.5	2862.9	2869.2
5°	2837.1	2882.5	2858.9	2862.2	2886.2
7.5°	2822.9	2868.8	2851.3	2861.1	2884.6
10°	2809.8	2857.8	2842.5	2856.7	2878.1
12.5°	2792.2	2842.4	2831.6	2848.0	2869.2
15°	2755.2	2808.5	2807.0	2826.5	2839.8
17.5°	2712.0	2765.4	2762.8	2767.8	2774.3
20°	2681.4	2734.8	2727.8	2708.7	2708.7
22.5°	2637.8	2695.5	2677.6	2625.4	2608.3
25°	2572.2	2628.3	2574.9	2467.5	2427.5
27.5°	2495.8	2541.1	2434.0	2281.5	2226.0
30°	2441.2	2475.9	2318.3	2150.5	2097.1
32.5°	2384.3	2397.6	2200.3	2025.9	1968.2
35°	2290.9	2266.9	2017.9	1841.9	1791.3
37.5°	2180.7	2109.1	1842.6	1658.3	1602.3
40°	2099.8	1998.4	1720.3	1536.1	1480.0
42.5°	2010.3	1883.2	1604.5	1420.2	1362.0
45°	1862.3	1712.7	1428.1	1249.4	1193.3
47.5°	1695.7	1547.3	1263.2	1090.1	1042.0
50°	1575.6	1431.4	1160.5	987.2	928.4
52.5°	1453.2	1324.0	1060.0	881.8	801.7
55°	1286.1	1163.3	914.7	717.1	671.7
57.5°	1114.0	1007.9	783.1	603.7	566.3
60°	1004.8	911.4	693.5	542.5	505.2
62.5°	900.0	817.2	606.1	485.8	454.9
65°	742.7	681.3	505.2	406.2	379.6
67.5°	589.9	555.6	419.9	333.3	315.7
70°	491.5	480.9	363.2	291.8	278.5
72.5°	406.4	410.5	308.6	252.7	243.5
75°	289.4	310.8	237.5	199.2	193.9
77.5°	197.2	229.2	175.8	147.3	143.0
80°	144.7	176.7	136.6	114.6	114.6
82.5°	101.1	126.6	97.2	86.3	86.3
85°	49.2	62.5	51.9	35.4	32.8
87.5°	13.3	20.1	10.5	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	20.27	21.08	21.24	22.07	23.36	16.75	17.57	17.73	18.55	19.84
	3H	21.59	22.31	22.57	23.31	24.62	17.96	18.68	18.94	19.68	20.99
	4H	21.96	22.65	22.96	23.64	24.96	18.40	19.09	19.40	20.08	21.41
	6H	22.16	22.79	23.17	23.79	25.13	18.72	19.35	19.73	20.35	21.68
	8H	22.19	22.79	23.21	23.81	25.14	18.79	19.39	19.81	20.41	21.74
	12H	22.19	22.76	23.21	23.77	25.12	18.80	19.37	19.82	20.38	21.74
4H	2H	20.37	21.05	21.37	22.05	23.37	17.43	18.12	18.44	19.12	20.44
	3H	21.91	22.48	22.92	23.50	24.84	18.82	19.39	19.83	20.41	21.75
	4H	22.41	22.94	23.44	23.95	25.31	19.36	19.88	20.38	20.90	22.26
	6H	22.74	23.19	23.78	24.23	25.59	19.76	20.21	20.79	21.25	22.60
	8H	22.82	23.24	23.85	24.27	25.64	19.87	20.28	20.90	21.32	22.69
	12H	22.83	23.21	23.89	24.26	25.63	19.89	20.26	20.94	21.31	22.69
8H	4H	22.45	22.87	23.48	23.90	25.27	19.68	20.10	20.72	21.13	22.50
	6H	22.88	23.23	23.94	24.30	25.67	20.19	20.53	21.24	21.61	22.97
	8H	23.03	23.33	24.09	24.39	25.78	20.35	20.65	21.41	21.71	23.10
	12H	23.09	23.36	24.16	24.41	25.84	20.41	20.68	21.48	21.73	23.16
12H	4H	22.41	22.78	23.46	23.83	25.21	19.70	20.07	20.75	21.12	22.50
	6H	22.87	23.18	23.94	24.24	25.62	20.25	20.56	21.32	21.62	23.00
	8H	23.03	23.30	24.10	24.36	25.78	20.44	20.70	21.50	21.76	23.19