

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: P854864

Luminaire Tested: SQ2-PW1-100U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854864
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-100U-125D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

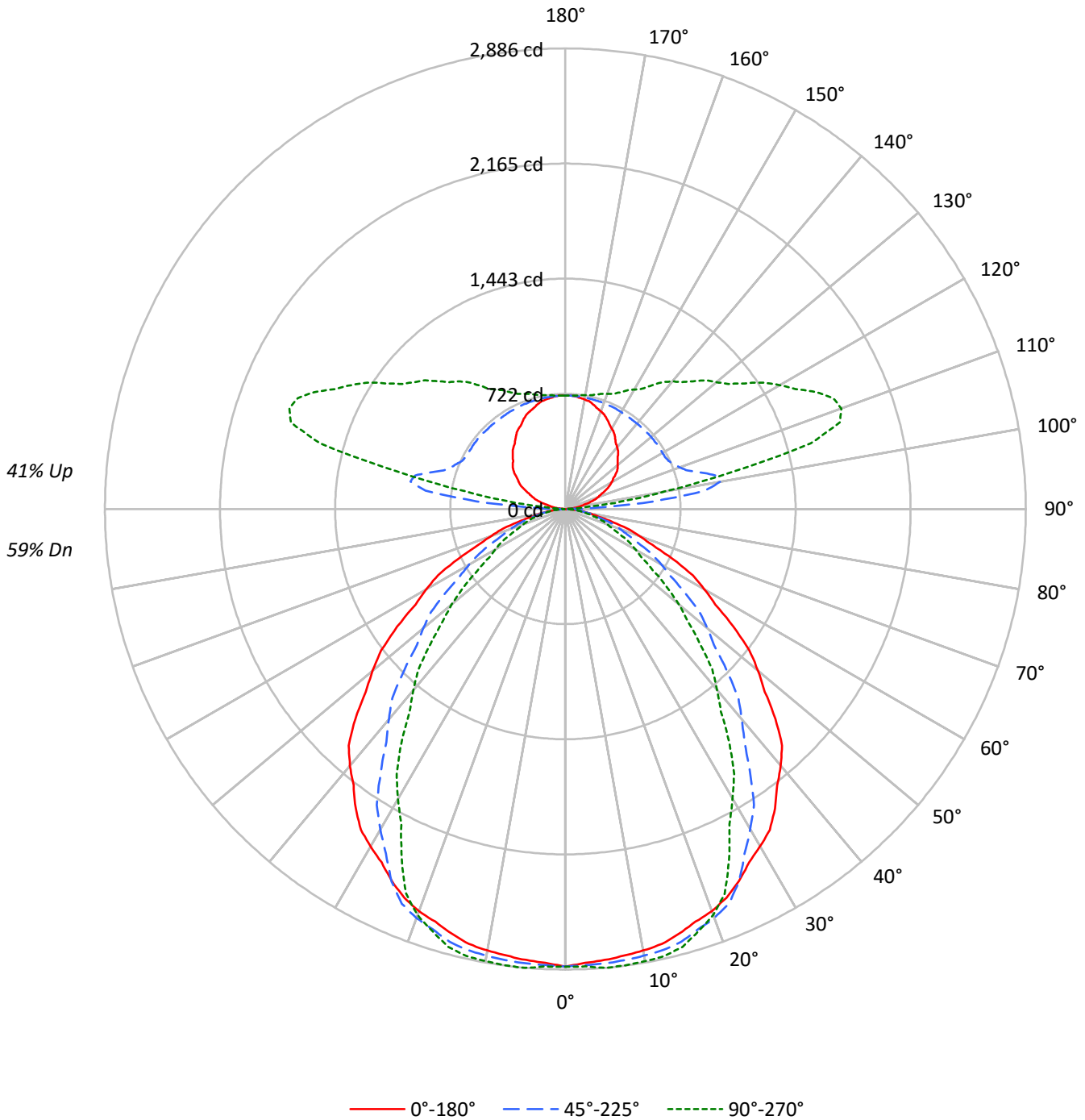
Lumens per Lamp: N/A
Luminaire Lumens: 10788.1 lumens
Efficiency: N/A
Efficacy: 131.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 81.8
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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	100	96	93	89	94	90	87	84	79	76	74	68	66	65	58	57	56	51
2	92	85	79	74	86	80	74	70	70	66	62	60	58	55	52	50	48	44
3	84	75	68	63	79	71	64	59	62	57	53	54	50	47	47	44	42	38
4	78	67	59	54	72	63	56	51	56	50	46	49	44	41	42	39	36	33
5	71	60	52	46	67	57	50	44	50	44	40	44	40	36	38	35	32	29
6	66	54	46	41	62	51	44	39	45	40	35	40	35	32	35	31	29	26
7	61	49	41	36	57	46	39	34	41	36	31	37	32	29	32	28	26	23
8	57	45	37	32	53	42	36	31	38	32	28	34	29	26	29	26	23	21
9	53	41	34	29	50	39	32	28	35	29	25	31	26	23	27	24	21	19
10	50	38	31	26	47	36	29	25	32	27	23	29	24	21	25	22	19	17

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	2.5
10°-20°	791.0	7.3
20°-30°	1164.1	10.8
30°-40°	1272.7	11.8
40°-50°	1141.8	10.6
50°-60°	851.7	7.9
60°-70°	538.2	5.0
70°-80°	266.6	2.5
80°-90°	63.7	0.6
90°-100°	296.9	2.8
100°-110°	898.1	8.3
110°-120°	876.8	8.1
120°-130°	716.4	6.6
130°-140°	584.8	5.4
140°-150°	455.2	4.2
150°-160°	328.2	3.0
160°-170°	200.9	1.9
170°-180°	67.8	0.6
0°-30°	2228.1	20.7
0°-40°	3500.9	32.5
0°-60°	5494.3	50.9
0°-90°	6362.8	59.0
90°-120°	2071.8	19.2
90°-150°	3828.3	35.5
90°-180°	4425.0	41.0
0°-180°	10788.1	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°	0	2	13	8	7	4
95°	37	116	560	207	131	44
105°	156	220	882	1675	1592	164
115°	278	331	713	1476	1734	275
125°	388	431	703	1166	1372	345
135°	466	515	699	1005	1131	360
145°	544	584	699	865	945	340
155°	620	640	703	775	805	285
165°	678	685	706	734	742	191
175°	709	709	710	716	713	67
180°	711	711	711	711	711	



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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°	13.1	19.9	11.4	8.1	7.9
90°	0.0	2.1	13.3	7.8	6.7
92.5°	12.6	50.5	181.2	60.2	43.3
95°	36.9	116.5	560.3	207.0	130.6
97.5°	71.2	148.2	883.1	584.4	355.8
100°	92.6	167.9	986.7	953.9	640.7
102.5°	116.8	189.5	965.3	1338.0	1066.6
105°	156.3	219.6	881.8	1674.7	1591.7
107.5°	193.8	254.3	801.5	1708.1	1804.1
110°	218.8	276.7	761.3	1666.0	1840.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	242.9	298.9	737.2	1595.7	1816.6
115°	277.9	331.4	713.3	1475.9	1733.5
117.5°	312.7	363.4	704.8	1363.8	1627.4
120°	336.0	384.0	702.1	1298.3	1551.6
122.5°	357.4	402.8	702.1	1240.8	1474.8
125°	388.5	431.0	703.3	1165.6	1371.8
127.5°	413.7	457.8	702.1	1108.8	1284.7
130°	429.8	475.5	702.1	1076.4	1235.7
132.5°	444.0	490.7	701.2	1046.6	1193.7
135°	465.5	514.6	698.7	1005.3	1130.8
137.5°	489.3	536.0	698.7	961.0	1077.4
140°	504.5	550.4	698.7	932.3	1042.6
142.5°	519.8	563.9	697.8	906.1	1002.4
145°	543.6	584.0	698.7	864.7	945.4
147.5°	567.5	601.7	700.1	830.6	892.5
150°	582.7	614.3	701.0	811.6	863.9
152.5°	597.0	625.1	701.9	795.3	838.0
155°	619.5	640.3	703.3	775.4	804.8
157.5°	639.2	656.0	704.6	760.6	781.2
160°	650.8	664.9	705.4	751.5	766.8
162.5°	662.3	673.1	706.3	743.5	756.2
165°	677.6	685.2	706.5	733.6	742.3
167.5°	690.5	694.4	707.9	725.9	729.6
170°	697.6	699.9	708.8	722.3	723.3
172.5°	702.1	703.4	708.8	718.6	718.9
175°	708.8	708.8	709.9	715.5	713.3
177.5°	712.0	711.1	710.2	712.8	711.1
180°	711.1	711.1	711.1	711.1	711.1



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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	21.18	22.08	22.06	22.98	24.12	17.66	18.57	18.55	19.47	20.61
	3H	22.50	23.31	23.40	24.22	25.38	18.87	19.68	19.77	20.59	21.75
	4H	22.88	23.64	23.79	24.55	25.73	19.32	20.08	20.24	21.00	22.17
	6H	23.09	23.78	24.01	24.71	25.89	19.64	20.34	20.57	21.26	22.45
	8H	23.12	23.78	24.05	24.72	25.91	19.72	20.38	20.65	21.32	22.51
	12H	23.12	23.75	24.05	24.68	25.89	19.73	20.36	20.67	21.29	22.51
4H	2H	21.29	22.05	22.21	22.96	24.14	18.35	19.11	19.27	20.03	21.20
	3H	22.84	23.47	23.77	24.41	25.60	19.74	20.37	20.67	21.32	22.51
	4H	23.35	23.92	24.28	24.86	26.08	20.29	20.87	21.23	21.81	23.02
	6H	23.68	24.17	24.63	25.14	26.35	20.70	21.19	21.65	22.16	23.37
	8H	23.76	24.22	24.71	25.18	26.41	20.80	21.27	21.76	22.22	23.45
	12H	23.78	24.19	24.75	25.17	26.40	20.83	21.24	21.80	22.22	23.45
8H	4H	23.39	23.85	24.34	24.81	26.04	20.62	21.08	21.58	22.04	23.27
	6H	23.83	24.21	24.80	25.21	26.43	21.13	21.51	22.11	22.51	23.74
	8H	23.97	24.31	24.96	25.30	26.54	21.29	21.63	22.28	22.62	23.86
	12H	24.04	24.33	25.03	25.32	26.61	21.35	21.65	22.35	22.63	23.93
12H	4H	23.35	23.76	24.32	24.74	25.97	20.64	21.05	21.61	22.03	23.26
	6H	23.82	24.15	24.81	25.14	26.39	21.19	21.53	22.18	22.52	23.77
	8H	23.98	24.28	24.97	25.26	26.55	21.38	21.68	22.37	22.66	23.95