

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: P854892

Luminaire Tested: SQ2-PR1-100U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854892
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-100U-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

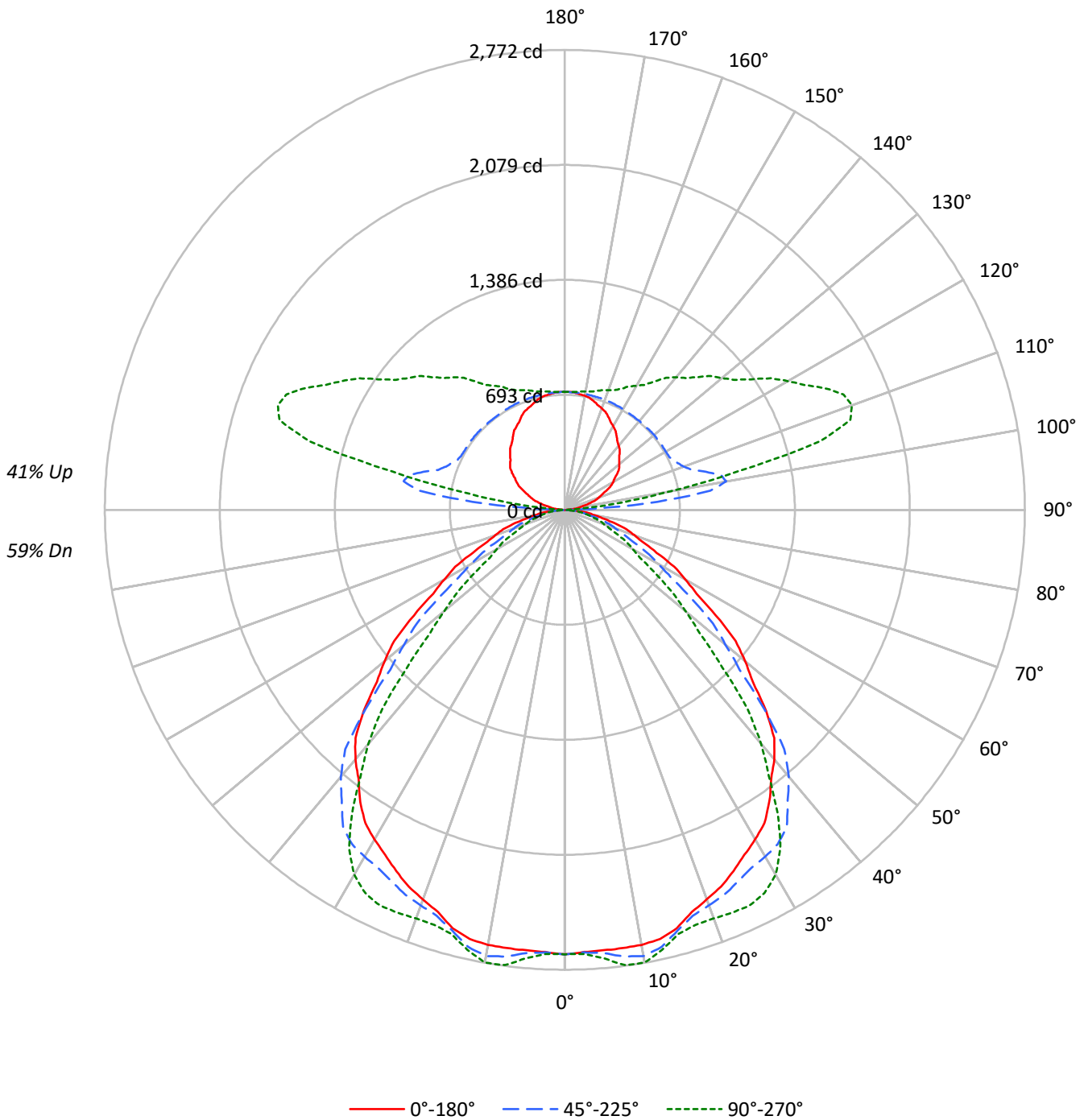
Lumens per Lamp: N/A
Luminaire Lumens: 10870.4 lumens
Efficiency: N/A
Efficacy: 132.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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	65	65	65	59
1	101	97	93	90	94	90	87	84	79	76	74	68	66	65	58	57	56	51
2	92	85	79	74	86	80	75	70	70	66	63	61	58	55	52	50	48	44
3	85	75	68	63	79	71	65	60	62	57	54	54	51	48	47	44	42	38
4	78	67	60	54	72	63	56	51	56	50	46	49	45	41	42	39	37	33
5	72	60	52	46	67	57	50	44	50	45	40	44	40	36	38	35	32	29
6	66	54	46	41	62	51	44	39	45	40	35	40	36	32	35	31	29	26
7	61	49	41	36	57	47	39	34	41	36	31	37	32	29	32	28	26	23
8	57	45	37	32	53	42	35	31	38	32	28	34	29	26	30	26	23	21
9	53	41	34	29	50	39	32	27	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°	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	2.4
10°-20°	748.8	6.9
20°-30°	1157.5	10.6
30°-40°	1392.3	12.8
40°-50°	1250.1	11.5
50°-60°	837.5	7.7
60°-70°	487.1	4.5
70°-80°	250.2	2.3
80°-90°	63.0	0.6
90°-100°	296.9	2.7
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	1.8
170°-180°	67.8	0.6
0°-30°	2165.0	19.9
0°-40°	3557.3	32.7
0°-60°	5644.9	51.9
0°-90°	6445.2	59.3
90°-120°	2071.8	19.1
90°-150°	3828.3	35.2
90°-180°	4425.0	40.7
0°-180°	10870.4	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°	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°	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°	17.5	17.9	9.3	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	20.70	21.60	21.58	22.49	23.63	17.42	18.32	18.30	19.22	20.35
	3H	21.93	22.74	22.83	23.64	24.80	18.49	19.29	19.39	20.20	21.36
	4H	22.39	23.15	23.30	24.06	25.23	18.89	19.65	19.80	20.56	21.73
	6H	22.71	23.40	23.63	24.32	25.51	19.23	19.92	20.15	20.84	22.03
	8H	22.79	23.45	23.72	24.39	25.57	19.31	19.97	20.24	20.91	22.09
	12H	22.82	23.45	23.75	24.38	25.59	19.32	19.95	20.26	20.88	22.09
4H	2H	20.78	21.54	21.70	22.45	23.62	17.99	18.75	18.91	19.66	20.84
	3H	22.26	22.88	23.18	23.83	25.01	19.27	19.89	20.19	20.84	22.02
	4H	22.85	23.42	23.79	24.36	25.57	19.77	20.34	20.71	21.28	22.49
	6H	23.31	23.80	24.26	24.76	25.97	20.21	20.70	21.16	21.66	22.88
	8H	23.44	23.90	24.39	24.85	26.08	20.33	20.79	21.29	21.75	22.97
	12H	23.50	23.91	24.47	24.88	26.11	20.36	20.77	21.33	21.74	22.97
8H	4H	22.88	23.34	23.83	24.29	25.52	20.08	20.54	21.03	21.50	22.72
	6H	23.43	23.81	24.41	24.81	26.03	20.62	21.00	21.60	21.99	23.22
	8H	23.63	23.96	24.61	24.95	26.19	20.80	21.14	21.79	22.12	23.37
	12H	23.73	24.03	24.72	25.01	26.30	20.87	21.16	21.86	22.14	23.43
12H	4H	22.84	23.25	23.81	24.23	25.46	20.10	20.51	21.07	21.49	22.72
	6H	23.42	23.75	24.40	24.74	25.98	20.68	21.01	21.66	22.00	23.24
	8H	23.63	23.93	24.62	24.91	26.20	20.89	21.18	21.87	22.16	23.45