

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: P855071

Luminaire Tested: SQ2-PW1-100U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855071  
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-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

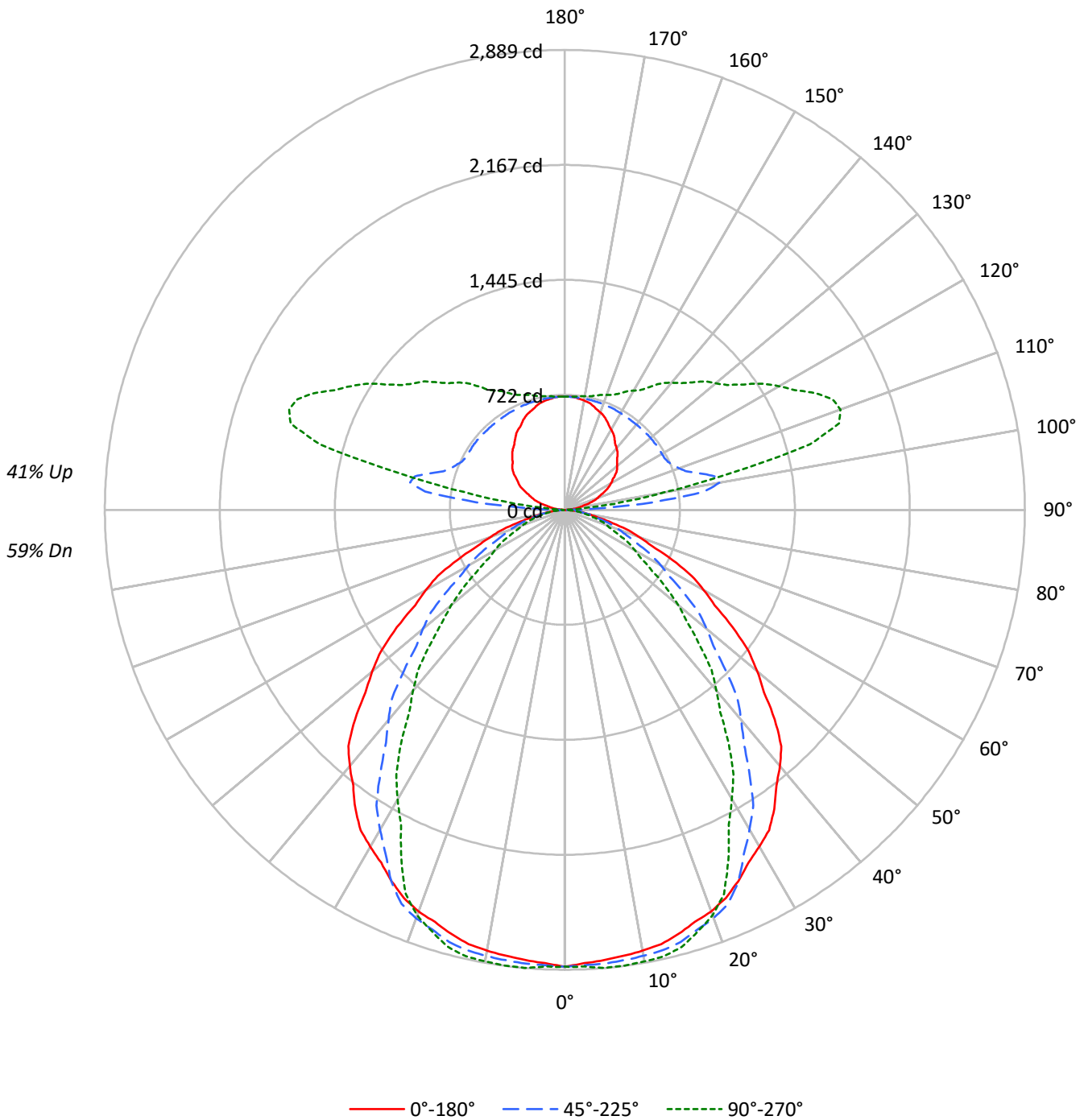
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10797.9 lumens  
Efficiency: N/A  
Efficacy: 132.0 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	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°	46334	46334	46334
5°	46024	46378	46820
10°	46107	46645	47229
15°	46094	46964	47512
20°	46115	46912	46582
25°	45865	45915	43285
30°	45554	43261	39133
35°	45196	39809	35339
40°	44297	36290	31221
45°	42562	32638	27273
50°	39612	29175	23340
55°	36237	25771	18925
60°	32476	22417	16327
65°	28401	19316	14514
70°	23221	17160	13157
75°	18072	14835	12108
80°	13473	12710	10674
85°	9114	9615	6076

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 42562 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	273.2	2.5
10°-20°	791.7	7.3
20°-30°	1165.1	10.8
30°-40°	1273.9	11.8
40°-50°	1142.8	10.6
50°-60°	852.5	7.9
60°-70°	538.7	5.0
70°-80°	266.9	2.5
80°-90°	63.7	0.6
90°-100°	297.2	2.8
100°-110°	898.9	8.3
110°-120°	877.5	8.1
120°-130°	717.1	6.6
130°-140°	585.3	5.4
140°-150°	455.7	4.2
150°-160°	328.5	3.0
160°-170°	201.1	1.9
170°-180°	67.9	0.6
0°-30°	2230.1	20.7
0°-40°	3504.0	32.5
0°-60°	5499.3	50.9
0°-90°	6368.6	59.0
90°-120°	2073.7	19.2
90°-150°	3831.8	35.5
90°-180°	4429.0	41.0
0°-180°	10797.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2870	2870	2870	2870	2870	
5°	2840	2885	2862	2865	2889	270
15°	2758	2811	2810	2829	2842	779
25°	2574	2631	2577	2470	2430	1186
35°	2293	2269	2020	1844	1793	1430
45°	1864	1714	1429	1250	1194	1429
55°	1287	1164	916	718	672	1149
65°	743	682	506	407	380	737
75°	290	311	238	199	194	319
85°	49	63	52	35	33	62
90°	0	2	13	8	7	4
95°	37	117	561	207	131	44
105°	156	220	883	1676	1593	164
115°	278	332	714	1477	1735	275
125°	389	431	704	1167	1373	345
135°	466	515	699	1006	1132	361
145°	544	584	699	866	946	341
155°	620	641	704	776	806	285
165°	678	686	707	734	743	191
175°	709	709	711	716	714	67
180°	712	712	712	712	712	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2869.7	2869.7	2869.7	2869.7	2869.7
2.5°	2850.0	2886.3	2863.1	2865.5	2871.8
5°	2839.7	2885.1	2861.5	2864.8	2888.8
7.5°	2825.4	2871.4	2853.8	2863.7	2887.2
10°	2812.3	2860.4	2845.1	2859.3	2880.7
12.5°	2794.8	2845.0	2834.1	2850.5	2871.8
15°	2757.6	2811.1	2809.6	2829.0	2842.4
17.5°	2714.4	2767.9	2765.3	2770.3	2776.8
20°	2683.9	2737.3	2730.3	2711.1	2711.1
22.5°	2640.2	2697.9	2680.0	2627.7	2610.6
25°	2574.5	2630.7	2577.3	2469.7	2429.7
27.5°	2498.0	2543.4	2436.2	2283.6	2228.0
30°	2443.4	2478.1	2320.4	2152.4	2099.0
32.5°	2386.5	2399.8	2202.3	2027.7	1970.0
35°	2293.0	2269.0	2019.7	1843.6	1792.9
37.5°	2182.6	2111.0	1844.3	1659.8	1603.8
40°	2101.7	2000.2	1721.8	1537.5	1481.3
42.5°	2012.1	1884.9	1605.9	1421.5	1363.2
45°	1864.0	1714.2	1429.4	1250.5	1194.4
47.5°	1697.3	1548.7	1264.3	1091.0	1042.9
50°	1577.0	1432.7	1161.5	988.1	929.2
52.5°	1454.5	1325.2	1060.9	882.6	802.5
55°	1287.3	1164.4	915.5	717.7	672.3
57.5°	1115.0	1008.8	783.8	604.2	566.9
60°	1005.7	912.2	694.2	543.0	505.6
62.5°	900.8	818.0	606.7	486.3	455.3
65°	743.4	681.9	505.6	406.6	379.9
67.5°	590.4	556.1	420.3	333.6	316.0
70°	491.9	481.3	363.5	292.1	278.7
72.5°	406.7	410.9	308.8	252.9	243.8
75°	289.7	311.1	237.8	199.4	194.1
77.5°	197.4	229.4	176.0	147.5	143.2
80°	144.9	176.9	136.7	114.8	114.8
82.5°	101.2	126.7	97.3	86.3	86.3
85°	49.2	62.6	51.9	35.4	32.8
87.5°	13.1	19.9	11.4	8.1	7.9
90°	0.0	2.2	13.4	7.8	6.7
92.5°	12.6	50.6	181.4	60.2	43.3
95°	36.9	116.6	560.9	207.2	130.7
97.5°	71.3	148.4	883.9	585.0	356.1
100°	92.7	168.1	987.6	954.8	641.3
102.5°	116.9	189.7	966.2	1339.2	1067.6
105°	156.4	219.8	882.6	1676.2	1593.2
107.5°	194.0	254.5	802.2	1709.6	1805.7
110°	219.0	276.9	761.9	1667.5	1842.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	243.1	299.2	737.8	1597.1	1818.2
115°	278.2	331.7	714.0	1477.3	1735.1
117.5°	313.0	363.7	705.5	1365.0	1628.9
120°	336.3	384.3	702.8	1299.5	1553.0
122.5°	357.7	403.2	702.8	1241.9	1476.1
125°	388.8	431.4	703.9	1166.6	1373.0
127.5°	414.1	458.2	702.8	1109.8	1285.9
130°	430.1	476.0	702.8	1077.3	1236.8
132.5°	444.4	491.1	701.9	1047.6	1194.8
135°	465.9	515.0	699.4	1006.2	1131.8
137.5°	489.8	536.5	699.4	961.9	1078.4
140°	504.9	550.9	699.4	933.2	1043.5
142.5°	520.2	564.4	698.5	906.9	1003.3
145°	544.1	584.5	699.4	865.5	946.3
147.5°	568.0	602.3	700.7	831.3	893.3
150°	583.3	614.8	701.6	812.3	864.7
152.5°	597.5	625.7	702.5	796.0	838.8
155°	620.0	640.9	703.9	776.1	805.5
157.5°	639.7	656.6	705.3	761.3	781.9
160°	651.4	665.5	706.0	752.2	767.5
162.5°	662.9	673.7	707.0	744.2	756.9
165°	678.2	685.8	707.2	734.2	742.9
167.5°	691.1	695.1	708.5	726.5	730.3
170°	698.2	700.5	709.4	722.9	723.9
172.5°	702.8	704.0	709.4	719.3	719.5
175°	709.4	709.4	710.6	716.1	714.0
177.5°	712.6	711.7	710.8	713.4	711.7
180°	711.7	711.7	711.7	711.7	711.7

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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	21.18	22.08	22.07	22.98	24.12	17.67	18.57	18.55	19.47	20.61
	3H	22.51	23.31	23.41	24.22	25.39	18.88	19.68	19.77	20.59	21.76
	4H	22.88	23.64	23.80	24.56	25.73	19.33	20.09	20.24	21.00	22.18
	6H	23.09	23.79	24.01	24.71	25.90	19.65	20.34	20.57	21.26	22.45
	8H	23.12	23.79	24.06	24.73	25.91	19.72	20.39	20.65	21.32	22.51
	12H	23.12	23.75	24.06	24.68	25.90	19.73	20.37	20.67	21.30	22.51
4H	2H	21.29	22.05	22.21	22.96	24.14	18.36	19.12	19.27	20.03	21.21
	3H	22.84	23.47	23.77	24.42	25.61	19.75	20.38	20.68	21.32	22.51
	4H	23.35	23.92	24.29	24.86	26.08	20.30	20.87	21.23	21.81	23.03
	6H	23.68	24.18	24.64	25.14	26.36	20.70	21.20	21.65	22.16	23.38
	8H	23.76	24.22	24.72	25.18	26.41	20.81	21.27	21.76	22.23	23.46
	12H	23.78	24.19	24.75	25.17	26.40	20.83	21.25	21.80	22.22	23.46
8H	4H	23.39	23.85	24.35	24.81	26.04	20.63	21.09	21.58	22.04	23.27
	6H	23.83	24.21	24.81	25.21	26.44	21.13	21.51	22.11	22.51	23.74
	8H	23.97	24.31	24.96	25.30	26.55	21.30	21.63	22.28	22.62	23.87
	12H	24.04	24.34	25.03	25.32	26.61	21.36	21.65	22.35	22.64	23.93
12H	4H	23.35	23.77	24.32	24.74	25.98	20.64	21.06	21.62	22.03	23.27
	6H	23.82	24.16	24.81	25.15	26.39	21.20	21.53	22.19	22.52	23.77
	8H	23.98	24.28	24.97	25.26	26.56	21.39	21.68	22.38	22.66	23.96