

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: P855314

Luminaire Tested: SQ2-PR1-075U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855314  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-075U-125D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

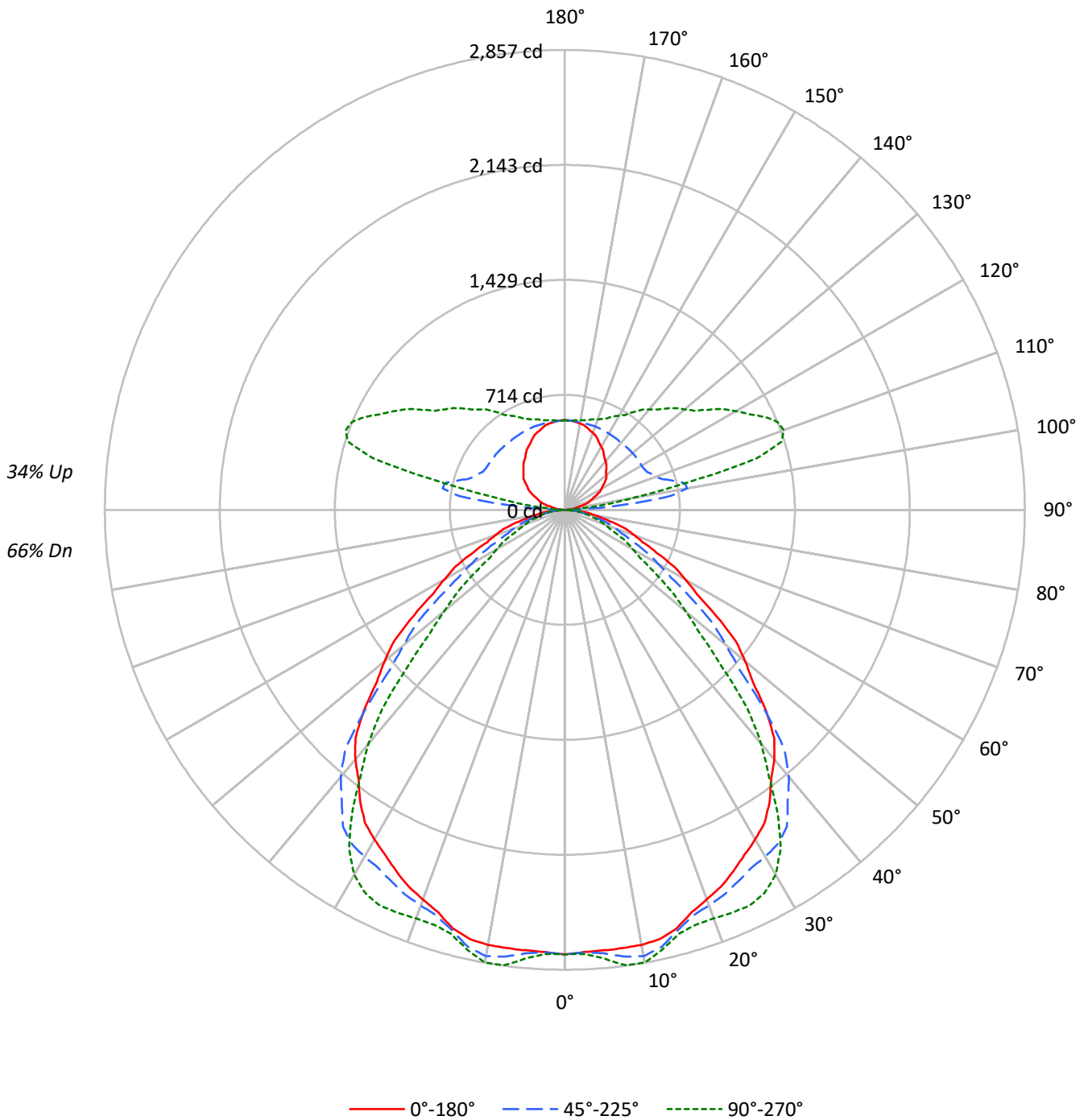
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10083.8 lumens  
Efficiency: N/A  
Efficacy: 139.1 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: Semi-Direct  
  
Input Watts (W): 72.5  
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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66				
1	102	98	94	91	96	93	89	86	82	80	78	73	71	69	64	63	61	57				
2	94	87	81	76	88	82	77	72	73	69	66	65	62	59	57	55	53	49				
3	86	77	70	64	81	73	66	61	65	60	56	58	54	51	51	48	46	43				
4	79	69	61	55	74	65	58	53	58	53	48	52	48	44	46	43	40	37				
5	73	61	54	48	69	58	51	46	53	47	42	47	42	39	42	38	35	33				
6	67	55	47	42	63	53	45	40	48	42	37	43	38	34	38	34	31	29				
7	62	50	42	37	59	48	41	36	43	37	33	39	34	31	35	31	28	26				
8	58	46	38	33	55	44	37	32	40	34	30	36	31	27	32	28	25	23				
9	54	42	35	30	51	40	33	29	37	31	27	33	28	25	30	26	23	21				
10	51	39	31	27	48	37	30	26	34	28	24	31	26	23	28	24	21	19				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	44580	44580	44580
5°	44522	44796	45344
10°	44991	46145	46835
15°	44976	45212	45588
20°	44249	44926	46426
25°	44122	45376	48336
30°	44075	46385	48800
35°	43659	47376	45433
40°	42651	45619	39981
45°	40361	40039	31618
50°	36691	32734	24531
55°	32245	26936	19094
60°	27900	21542	15723
65°	24088	17849	13761
70°	21659	15810	12227
75°	19838	13699	11241
80°	17276	10990	10990
85°	12523	9911	5224

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 43626 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	266.6	2.6
10°-20°	771.8	7.7
20°-30°	1193.1	11.8
30°-40°	1435.1	14.2
40°-50°	1288.5	12.8
50°-60°	863.3	8.6
60°-70°	502.1	5.0
70°-80°	257.9	2.6
80°-90°	64.2	0.6
90°-100°	210.2	2.1
100°-110°	696.8	6.9
110°-120°	691.6	6.9
120°-130°	563.3	5.6
130°-140°	457.8	4.5
140°-150°	355.5	3.5
150°-160°	256.2	2.5
160°-170°	156.9	1.6
170°-180°	53.0	0.5
0°-30°	2231.6	22.1
0°-40°	3666.6	36.4
0°-60°	5818.4	57.7
0°-90°	6642.6	65.9
90°-120°	1598.6	15.9
90°-150°	2975.2	29.5
90°-180°	3441.0	34.1
0°-180°	10083.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2761	2761	2761	2761	2761	
5°	2747	2794	2764	2770	2798	262
15°	2691	2801	2705	2714	2727	756
25°	2477	2576	2547	2642	2713	1142
35°	2215	2234	2404	2357	2305	1381
45°	1768	1911	1754	1478	1385	1352
55°	1146	1190	957	739	678	1029
65°	630	644	467	380	360	638
75°	318	310	220	186	180	337
85°	68	54	54	36	28	84
90°	0	1	4	4	4	4
95°	30	88	381	136	91	34
105°	122	174	697	1316	1230	129
115°	218	260	562	1169	1367	215
125°	304	338	551	919	1083	270
135°	364	401	547	788	890	281
145°	422	454	545	678	742	265
155°	482	499	549	606	628	222
165°	529	535	551	573	579	149
175°	553	553	555	558	557	53
180°	556	556	556	556	556	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2761.1	2761.1	2761.1	2761.1	2761.1
2.5°	2749.8	2782.7	2752.0	2754.4	2761.1
5°	2747.0	2793.7	2763.9	2770.2	2797.7
7.5°	2746.4	2813.0	2798.7	2815.8	2852.2
10°	2744.2	2824.0	2814.6	2818.2	2856.7
12.5°	2730.7	2823.7	2780.8	2777.3	2798.1
15°	2690.7	2800.7	2704.8	2713.5	2727.3
17.5°	2620.3	2735.3	2643.9	2674.9	2702.0
20°	2575.3	2688.1	2614.7	2655.1	2702.0
22.5°	2534.7	2647.6	2587.7	2644.3	2708.7
25°	2476.7	2575.9	2547.1	2641.6	2713.2
27.5°	2416.0	2474.3	2508.3	2635.0	2685.1
30°	2364.1	2402.7	2488.0	2598.3	2617.5
32.5°	2307.8	2331.0	2461.0	2518.4	2493.6
35°	2215.0	2234.3	2403.6	2357.4	2305.0
37.5°	2104.7	2144.3	2274.6	2141.7	2081.6
40°	2023.6	2089.7	2164.4	1965.8	1896.9
42.5°	1924.5	2030.2	2018.0	1765.0	1680.9
45°	1767.6	1910.6	1753.5	1478.3	1384.7
47.5°	1582.3	1729.2	1472.0	1226.2	1138.7
50°	1460.7	1579.1	1303.2	1073.0	976.6
52.5°	1336.9	1422.3	1159.0	929.1	841.5
55°	1145.5	1189.5	956.9	738.9	678.3
57.5°	969.8	997.9	781.9	596.8	552.2
60°	864.0	883.4	667.1	522.7	486.9
62.5°	767.2	782.1	574.8	459.9	432.8
65°	630.5	644.2	467.2	379.6	360.2
67.5°	521.9	529.0	384.5	315.4	297.2
70°	458.8	461.5	334.9	272.7	259.0
72.5°	402.5	398.6	287.6	236.8	227.4
75°	318.0	309.8	219.6	185.6	180.2
77.5°	237.5	228.8	154.2	143.0	143.0
80°	185.8	174.7	118.2	118.2	118.2
82.5°	138.4	123.1	91.1	91.1	88.9
85°	67.6	53.8	53.5	36.4	28.2
87.5°	18.1	18.2	7.5	7.7	7.7
90°	0.0	1.2	3.5	4.5	4.5
92.5°	9.2	35.5	104.8	33.9	28.6
95°	30.0	88.5	380.9	135.9	90.9
97.5°	55.0	116.2	664.9	387.7	245.1
100°	72.5	131.0	769.9	661.2	438.4
102.5°	91.8	148.6	763.3	1010.5	763.3
105°	122.0	173.8	697.4	1315.6	1230.1
107.5°	152.8	198.9	634.1	1346.6	1411.7
110°	170.3	216.4	601.8	1316.0	1447.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	188.7	233.9	582.5	1261.5	1429.2
115°	217.5	260.2	561.6	1169.0	1367.0
117.5°	246.0	284.0	553.9	1080.7	1288.4
120°	263.5	300.7	551.2	1025.3	1226.7
122.5°	279.1	315.4	551.2	979.8	1165.9
125°	303.8	337.5	551.2	918.6	1082.8
127.5°	324.1	357.1	549.8	872.2	1012.6
130°	336.0	370.9	548.9	845.1	971.2
132.5°	347.1	382.8	548.0	822.8	936.2
135°	363.6	400.8	546.6	788.3	889.6
137.5°	381.6	417.3	545.2	754.8	844.2
140°	393.6	428.4	544.2	732.6	814.7
142.5°	404.6	438.5	545.2	710.3	783.4
145°	422.3	453.8	545.4	678.0	742.2
147.5°	441.5	467.8	545.6	650.8	698.5
150°	453.3	477.0	546.6	634.9	675.5
152.5°	464.4	487.1	547.5	621.9	654.3
155°	482.1	499.0	548.9	605.8	628.3
157.5°	499.4	512.4	550.3	594.4	610.3
160°	508.6	519.9	551.2	586.0	598.3
162.5°	517.8	526.4	551.2	580.4	590.0
165°	529.3	534.9	551.2	573.1	578.9
167.5°	539.9	542.8	552.4	566.7	569.6
170°	545.4	546.6	552.4	563.8	565.0
172.5°	549.1	550.3	553.2	561.1	561.4
175°	553.4	553.4	554.6	558.1	556.9
177.5°	555.8	555.8	554.8	556.7	554.8
180°	555.8	555.8	555.8	555.8	555.8

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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	21.35	22.31	22.16	23.14	24.17	18.07	19.04	18.89	19.87	20.90
	3H	22.59	23.45	23.42	24.29	25.35	19.14	20.01	19.98	20.85	21.91
	4H	23.04	23.86	23.89	24.71	25.77	19.55	20.36	20.40	21.21	22.28
	6H	23.37	24.11	24.23	24.97	26.05	19.89	20.63	20.75	21.49	22.57
	8H	23.45	24.16	24.32	25.04	26.12	19.97	20.68	20.84	21.56	22.64
	12H	23.48	24.16	24.36	25.03	26.14	19.99	20.66	20.86	21.53	22.64
4H	2H	21.44	22.25	22.29	23.10	24.17	18.65	19.46	19.50	20.31	21.38
	3H	22.92	23.59	23.78	24.47	25.56	19.93	20.60	20.79	21.48	22.57
	4H	23.52	24.13	24.39	25.01	26.12	20.44	21.05	21.31	21.93	23.04
	6H	23.98	24.50	24.87	25.40	26.52	20.88	21.41	21.77	22.31	23.42
	8H	24.11	24.60	25.00	25.50	26.62	21.00	21.50	21.90	22.39	23.52
	12H	24.17	24.61	25.08	25.53	26.66	21.03	21.47	21.94	22.39	23.52
8H	4H	23.55	24.04	24.44	24.94	26.07	20.75	21.24	21.65	22.14	23.27
	6H	24.10	24.51	25.02	25.45	26.57	21.29	21.70	22.21	22.64	23.76
	8H	24.30	24.66	25.23	25.59	26.74	21.48	21.83	22.41	22.77	23.91
	12H	24.41	24.73	25.34	25.65	26.85	21.54	21.86	22.47	22.78	23.98
12H	4H	23.51	23.95	24.43	24.87	26.00	20.77	21.21	21.69	22.13	23.26
	6H	24.09	24.45	25.02	25.38	26.53	21.35	21.71	22.28	22.64	23.79
	8H	24.31	24.62	25.24	25.55	26.74	21.56	21.88	22.49	22.80	24.00