

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: P855095

Luminaire Tested: SQ2-PR1-125U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855095  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-125U-125D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

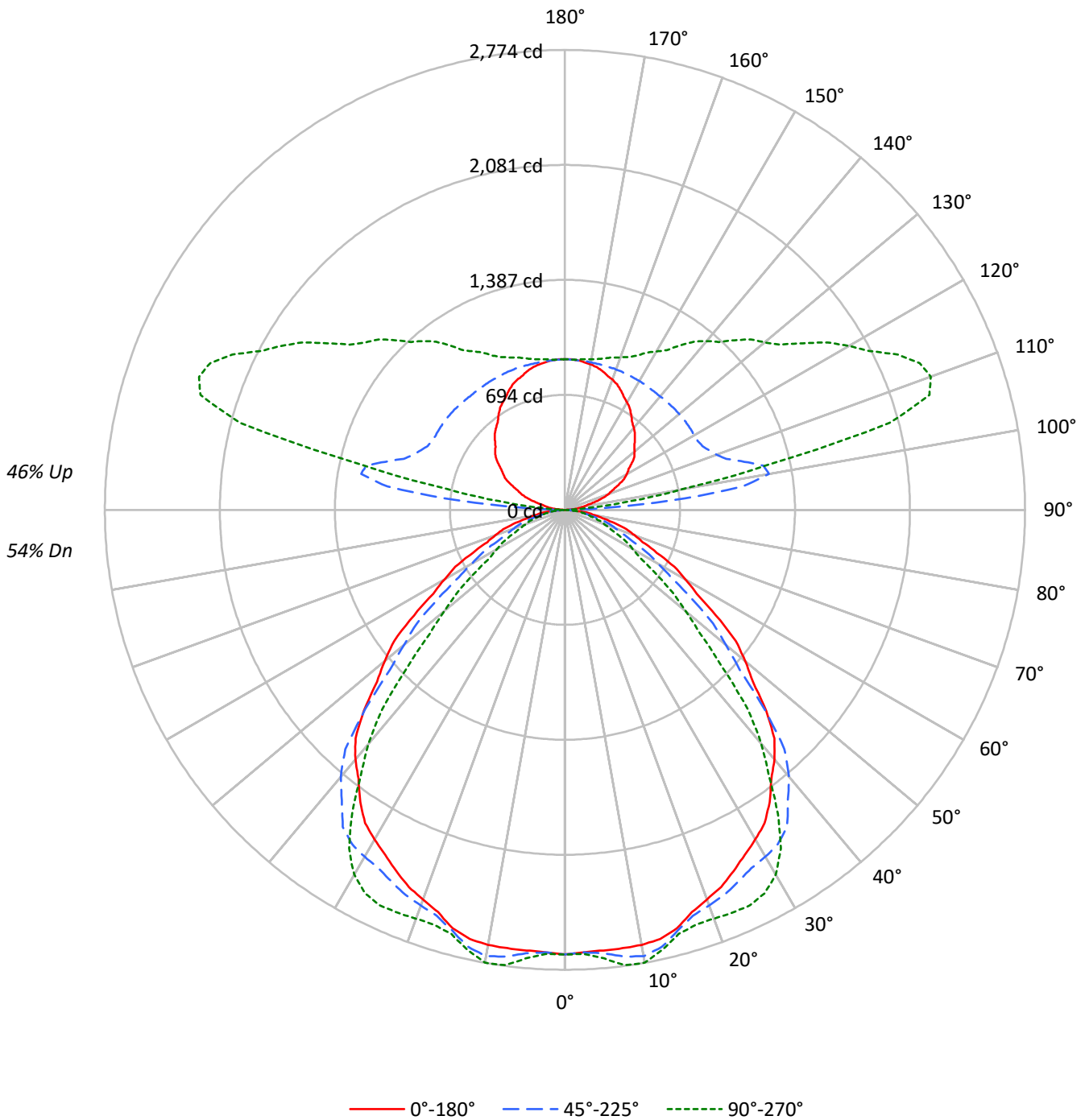
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12055.8 lumens  
Efficiency: N/A  
Efficacy: 129.5 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): 93.1  
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
RCR																				
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	54	54	54
1	99	95	92	88	92	88	85	82	76	74	71	64	63	61	54	52	51	46	46	46
2	91	84	78	73	84	78	73	69	67	63	60	57	54	52	48	46	44	40	40	40
3	83	74	67	62	77	69	63	58	60	55	51	51	48	45	43	41	38	35	35	35
4	77	66	58	53	71	62	55	50	54	48	44	46	42	39	39	36	34	30	30	30
5	70	59	51	46	65	55	48	43	48	43	39	41	37	34	35	32	30	27	27	27
6	65	53	45	40	60	50	43	38	44	38	34	38	33	30	32	29	26	23	23	23
7	60	48	40	35	56	45	38	33	40	34	30	34	30	27	29	26	24	21	21	21
8	56	44	36	31	52	41	34	30	36	31	27	31	27	24	27	24	21	19	19	19
9	52	40	33	28	48	38	31	27	33	28	24	29	25	22	25	22	19	17	17	17
10	49	37	30	25	45	35	28	24	31	25	22	27	23	20	23	20	17	16	16	16

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

	0°	45°	90°
0°	43289	43289	43289
5°	43232	43499	44031
10°	43688	44809	45479
15°	43674	43903	44267
20°	42969	43625	45082
25°	42845	44064	46935
30°	42800	45043	47386
35°	42393	46006	44118
40°	41416	44297	38824
45°	39192	38879	30702
50°	35628	31785	23820
55°	31311	26156	18539
60°	27093	20919	15268
65°	23389	17333	13364
70°	21031	15352	11873
75°	19264	13300	10917
80°	16774	10674	10674
85°	12153	9615	5076

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 42361 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.9	2.1
10°-20°	749.5	6.2
20°-30°	1158.6	9.6
30°-40°	1393.5	11.6
40°-50°	1251.2	10.4
50°-60°	838.3	7.0
60°-70°	487.6	4.0
70°-80°	250.4	2.1
80°-90°	62.8	0.5
90°-100°	347.5	2.9
100°-110°	1131.4	9.4
110°-120°	1119.1	9.3
120°-130°	914.6	7.6
130°-140°	747.5	6.2
140°-150°	582.2	4.8
150°-160°	419.7	3.5
160°-170°	256.5	2.1
170°-180°	86.5	0.7
0°-30°	2167.0	18.0
0°-40°	3560.5	29.5
0°-60°	5650.0	46.9
0°-90°	6450.7	53.5
90°-120°	2598.0	21.5
90°-150°	4842.3	40.2
90°-180°	5605.0	46.5
0°-180°	12055.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2681	2681	2681	2681	2681	
5°	2667	2713	2684	2690	2717	255
15°	2613	2720	2626	2635	2648	734
25°	2405	2501	2473	2565	2635	1109
35°	2151	2170	2334	2289	2238	1341
45°	1716	1855	1703	1436	1345	1313
55°	1112	1155	929	718	659	1000
65°	612	626	454	369	350	619
75°	309	301	213	180	175	328
85°	66	52	52	35	27	81
90°	0	3	8	7	7	5
95°	47	143	637	227	140	55
105°	192	277	1121	2141	2027	205
115°	355	424	913	1882	2214	352
125°	494	551	901	1486	1751	440
135°	597	659	896	1282	1446	461
145°	697	749	894	1104	1209	436
155°	796	822	900	989	1026	366
165°	868	876	902	936	946	245
175°	905	905	905	912	910	86
180°	908	908	908	908	908	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2681.1	2681.1	2681.1	2681.1	2681.1
2.5°	2670.2	2702.2	2672.3	2674.7	2681.1
5°	2667.4	2712.8	2683.9	2690.0	2716.7
7.5°	2666.9	2731.6	2717.7	2734.3	2769.6
10°	2664.7	2742.2	2733.1	2736.6	2774.0
12.5°	2651.6	2741.9	2700.3	2696.9	2717.1
15°	2612.8	2719.6	2626.5	2635.0	2648.3
17.5°	2544.4	2656.1	2567.4	2597.5	2623.8
20°	2500.8	2610.3	2539.0	2578.3	2623.8
22.5°	2461.4	2570.9	2512.7	2567.7	2630.3
25°	2405.0	2501.3	2473.4	2565.1	2634.6
27.5°	2346.1	2402.6	2435.7	2558.7	2607.4
30°	2295.7	2333.2	2416.0	2523.0	2541.7
32.5°	2241.0	2263.6	2389.7	2445.5	2421.4
35°	2150.8	2169.6	2334.1	2289.1	2238.3
37.5°	2043.8	2082.3	2208.8	2079.7	2021.4
40°	1965.0	2029.2	2101.7	1908.9	1842.0
42.5°	1868.8	1971.5	1959.6	1713.9	1632.2
45°	1716.4	1855.2	1702.7	1435.5	1344.6
47.5°	1536.5	1679.2	1429.4	1190.7	1105.7
50°	1418.4	1533.4	1265.4	1041.9	948.3
52.5°	1298.2	1381.1	1125.4	902.2	817.2
55°	1112.3	1155.1	929.2	717.5	658.6
57.5°	941.8	969.0	759.2	579.5	536.2
60°	839.0	857.8	647.8	507.6	472.8
62.5°	745.0	759.5	558.1	446.6	420.3
65°	612.2	625.6	453.7	368.6	349.8
67.5°	506.8	513.7	373.3	306.2	288.6
70°	445.5	448.1	325.2	264.8	251.5
72.5°	390.9	387.0	279.3	230.0	220.8
75°	308.8	300.8	213.2	180.3	175.0
77.5°	230.6	222.1	149.7	138.9	138.9
80°	180.4	169.6	114.8	114.8	114.8
82.5°	134.4	119.5	88.5	88.5	86.3
85°	65.6	52.3	51.9	35.3	27.4
87.5°	17.5	18.1	8.1	7.9	7.9
90°	0.0	3.3	7.8	6.7	6.7
92.5°	16.1	57.8	184.8	60.9	47.0
95°	47.0	143.0	636.9	227.1	139.6
97.5°	88.3	186.2	1081.0	658.4	401.9
100°	115.1	211.3	1248.1	1113.0	721.9
102.5°	145.5	238.1	1227.6	1646.6	1252.0
105°	192.2	277.4	1120.8	2140.7	2027.0
107.5°	242.7	322.9	1019.3	2183.4	2303.8
110°	279.4	352.5	971.1	2130.2	2347.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	309.7	382.0	940.6	2034.3	2314.6
115°	355.3	424.1	912.9	1881.5	2213.6
117.5°	402.3	464.3	902.2	1741.5	2072.2
120°	429.1	490.2	899.6	1655.5	1975.5
122.5°	455.0	515.4	900.5	1580.8	1879.0
125°	493.9	550.7	900.7	1485.5	1751.0
127.5°	527.2	585.3	900.5	1414.1	1635.5
130°	548.6	607.7	899.6	1373.3	1571.1
132.5°	567.4	629.1	898.7	1335.5	1521.1
135°	596.7	659.0	896.2	1282.1	1445.9
137.5°	625.4	688.1	893.7	1227.7	1373.3
140°	645.8	705.9	892.8	1191.0	1328.6
142.5°	665.5	723.0	892.8	1155.8	1278.6
145°	697.2	748.6	893.9	1104.2	1209.1
147.5°	728.1	772.7	895.5	1060.3	1141.3
150°	748.7	788.0	897.3	1034.0	1102.9
152.5°	769.2	801.6	898.2	1014.1	1069.0
155°	795.6	821.8	899.6	988.6	1025.7
157.5°	820.7	839.5	900.9	969.8	995.9
160°	835.8	851.1	901.7	958.1	978.9
162.5°	849.2	861.1	901.7	948.1	963.6
165°	868.2	875.9	901.7	935.5	946.4
167.5°	881.7	886.4	901.9	926.0	931.7
170°	890.6	892.8	902.8	919.7	921.9
172.5°	896.8	898.2	904.7	916.1	915.6
175°	905.1	905.1	905.1	911.8	909.6
177.5°	908.5	907.6	906.7	911.1	907.6
180°	908.5	908.5	908.5	908.5	908.5



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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	20.19	21.04	21.13	21.99	23.21	16.92	17.77	17.85	18.72	19.94
	3H	21.43	22.19	22.37	23.14	24.39	17.98	18.74	18.93	19.70	20.95
	4H	21.88	22.59	22.84	23.55	24.81	18.38	19.10	19.35	20.06	21.32
	6H	22.19	22.85	23.17	23.82	25.09	18.72	19.37	19.69	20.34	21.61
	8H	22.28	22.90	23.26	23.89	25.15	18.80	19.43	19.78	20.41	21.68
	12H	22.31	22.90	23.29	23.88	25.17	18.81	19.40	19.79	20.38	21.67
4H	2H	20.27	20.99	21.24	21.95	23.20	17.49	18.20	18.45	19.16	20.42
	3H	21.74	22.34	22.72	23.33	24.60	18.75	19.35	19.73	20.34	21.61
	4H	22.34	22.88	23.32	23.86	25.16	19.26	19.80	20.24	20.78	22.08
	6H	22.79	23.25	23.79	24.26	25.55	19.69	20.16	20.69	21.17	22.46
	8H	22.92	23.35	23.92	24.35	25.66	19.82	20.25	20.82	21.25	22.56
	12H	22.97	23.36	23.99	24.38	25.69	19.84	20.23	20.85	21.24	22.56
8H	4H	22.36	22.80	23.36	23.80	25.10	19.56	20.00	20.56	21.00	22.30
	6H	22.91	23.27	23.93	24.31	25.62	20.10	20.46	21.12	21.50	22.80
	8H	23.11	23.42	24.14	24.45	25.78	20.28	20.60	21.31	21.63	22.95
	12H	23.21	23.49	24.25	24.51	25.88	20.35	20.62	21.38	21.65	23.02
12H	4H	22.32	22.71	23.34	23.73	25.04	19.58	19.97	20.60	20.99	22.30
	6H	22.90	23.21	23.93	24.24	25.57	20.16	20.47	21.19	21.50	22.83
	8H	23.11	23.39	24.14	24.41	25.78	20.37	20.64	21.40	21.67	23.04