

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: P854890

Luminaire Tested: SQ2-PR1-125U-075D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854890  
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-075D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

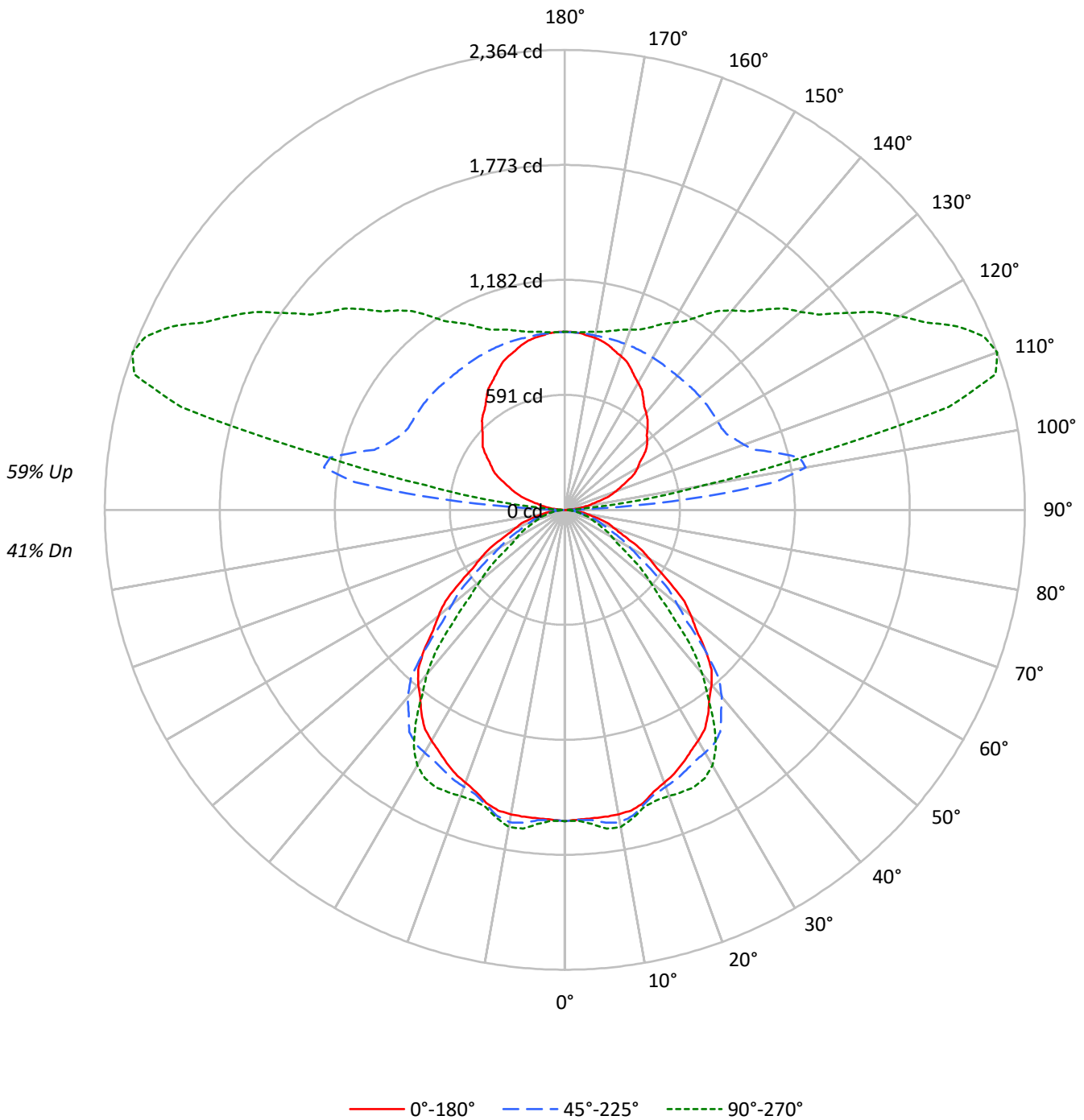
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9495.0 lumens  
Efficiency: N/A  
Efficacy: 134.5 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): 70.6  
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

TEST NUMBER: P854890

CATALOG NUMBER: SQ2-PR1-125U-075D-830-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P854890

CATALOG NUMBER: SQ2-PR1-125U-075D-830-UNV-STD-W-4

**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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	47	47	47	41				41
1	96	92	88	85	88	84	81	78	69	67	65	55	54	53	43	42	41				35	
2	88	81	75	70	80	74	69	65	61	58	55	49	47	45	38	37	35				30	
3	81	72	65	59	73	66	60	55	54	50	46	44	41	38	34	32	31				26	
4	74	64	56	50	67	58	52	47	49	44	40	39	36	33	31	29	27				23	
5	68	57	49	43	62	52	45	40	44	38	35	35	32	29	28	25	23				20	
6	63	51	43	38	57	47	40	35	39	34	30	32	28	26	25	23	21				18	
7	58	46	38	33	53	42	36	31	36	31	27	29	25	23	23	21	19				16	
8	54	42	34	29	49	39	32	27	33	27	24	27	23	20	21	19	17				14	
9	50	38	31	26	46	35	29	24	30	25	21	25	21	18	20	17	15				13	
10	47	35	28	23	43	32	26	22	27	23	19	23	19	16	18	16	14				12	

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

	0°	45°	90°
0°	25835	25835	25835
5°	25801	25960	26276
10°	26071	26742	27142
15°	26064	26200	26419
20°	25642	26036	26904
25°	25572	26297	28010
30°	25544	26880	28280
35°	25300	27457	26331
40°	24717	26435	23170
45°	23386	23201	18322
50°	21263	18969	14217
55°	18686	15612	11066
60°	16172	12484	9113
65°	13956	10346	7977
70°	12548	9163	7081
75°	11497	7935	6513
80°	10005	6369	6369
85°	7243	5743	3020

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 25281 cd/sqm



TEST NUMBER: P854890

CATALOG NUMBER: SQ2-PR1-125U-075D-830-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	154.5	1.6
10°-20°	447.3	4.7
20°-30°	691.4	7.3
30°-40°	831.6	8.8
40°-50°	746.7	7.9
50°-60°	500.3	5.3
60°-70°	291.0	3.1
70°-80°	149.4	1.6
80°-90°	37.9	0.4
90°-100°	350.0	3.7
100°-110°	1139.4	12.0
110°-120°	1127.1	11.9
120°-130°	921.1	9.7
130°-140°	752.8	7.9
140°-150°	586.4	6.2
150°-160°	422.6	4.5
160°-170°	258.3	2.7
170°-180°	87.2	0.9
0°-30°	1293.2	13.6
0°-40°	2124.9	22.4
0°-60°	3371.8	35.5
0°-90°	3850.2	40.5
90°-120°	2616.5	27.6
90°-150°	4876.7	51.4
90°-180°	5645.0	59.5
0°-180°	9495.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1600	1600	1600	1600	1600	
5°	1592	1619	1602	1605	1621	152
15°	1559	1623	1567	1572	1580	438
25°	1435	1493	1476	1531	1572	662
35°	1284	1295	1393	1366	1336	800
45°	1024	1107	1016	857	802	784
55°	664	689	555	428	393	597
65°	365	373	271	220	209	370
75°	184	180	127	108	104	196
85°	39	31	31	21	16	48
90°	0	3	8	7	7	4
95°	47	144	641	229	141	55
105°	194	279	1129	2156	2041	206
115°	358	427	919	1895	2229	354
125°	497	555	907	1496	1764	443
135°	601	664	903	1291	1456	464
145°	702	754	900	1112	1218	440
155°	801	828	906	996	1033	369
165°	874	882	908	942	953	246
175°	912	912	912	918	916	86
180°	915	915	915	915	915	



TEST NUMBER: P854890

CATALOG NUMBER: SQ2-PR1-125U-075D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1600.1	1600.1	1600.1	1600.1	1600.1
2.5°	1593.5	1612.6	1594.9	1596.2	1600.1
5°	1591.9	1619.0	1601.7	1605.3	1621.2
7.5°	1591.6	1630.2	1621.9	1631.9	1652.9
10°	1590.2	1636.5	1631.1	1633.2	1655.5
12.5°	1582.4	1636.4	1611.5	1609.5	1621.6
15°	1559.3	1623.0	1567.4	1572.5	1580.5
17.5°	1518.5	1585.2	1532.2	1550.2	1565.8
20°	1492.4	1557.8	1515.3	1538.7	1565.8
22.5°	1468.9	1534.3	1499.6	1532.4	1569.7
25°	1435.4	1492.7	1476.1	1530.9	1572.3
27.5°	1400.1	1433.9	1453.6	1527.0	1556.0
30°	1370.1	1392.4	1441.8	1505.7	1516.9
32.5°	1337.4	1350.9	1426.2	1459.4	1445.1
35°	1283.6	1294.8	1393.0	1366.2	1335.9
37.5°	1219.7	1242.7	1318.2	1241.1	1206.3
40°	1172.7	1211.0	1254.2	1139.2	1099.3
42.5°	1115.3	1176.5	1169.4	1022.9	974.0
45°	1024.2	1107.2	1016.1	856.7	802.4
47.5°	917.0	1002.1	853.1	710.6	660.0
50°	846.5	915.1	755.2	621.7	566.0
52.5°	774.7	824.2	671.7	538.4	487.6
55°	663.8	689.4	554.6	428.2	393.1
57.5°	562.0	578.3	453.0	345.9	320.0
60°	500.8	511.8	386.6	302.9	282.2
62.5°	444.6	453.3	333.1	266.5	250.9
65°	365.3	373.3	270.8	219.9	208.8
67.5°	302.4	306.5	222.8	182.7	172.2
70°	265.8	267.5	194.1	158.1	150.0
72.5°	233.3	231.0	166.7	137.3	131.8
75°	184.3	179.5	127.2	107.5	104.4
77.5°	137.7	132.5	89.4	82.9	82.9
80°	107.6	101.3	68.5	68.5	68.5
82.5°	80.3	71.3	52.8	52.8	51.6
85°	39.1	31.2	31.0	21.1	16.3
87.5°	10.4	11.1	5.5	5.3	5.3
90°	0.0	3.3	7.9	6.8	6.8
92.5°	16.2	58.2	186.1	61.4	47.3
95°	47.3	144.0	641.4	228.7	140.7
97.5°	88.9	187.5	1088.7	663.0	404.7
100°	115.9	212.8	1257.0	1120.9	727.0
102.5°	146.5	239.8	1236.4	1658.3	1260.9
105°	193.6	279.4	1128.7	2155.8	2041.4
107.5°	244.4	325.2	1026.5	2199.0	2320.3
110°	281.3	355.0	977.9	2145.4	2364.4



TEST NUMBER: P854890

CATALOG NUMBER: SQ2-PR1-125U-075D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	311.9	384.8	947.4	2048.7	2331.0
115°	357.8	427.2	919.4	1894.8	2229.3
117.5°	405.1	467.6	908.6	1753.9	2086.8
120°	432.1	493.8	905.9	1667.2	1989.6
122.5°	458.2	519.0	906.8	1592.1	1892.4
125°	497.4	554.6	907.0	1496.1	1763.5
127.5°	530.9	589.5	906.8	1424.2	1647.1
130°	552.5	612.0	905.9	1383.1	1582.2
132.5°	571.4	633.5	905.0	1345.0	1531.8
135°	600.9	663.7	902.6	1291.2	1456.3
137.5°	629.8	692.9	900.1	1236.5	1383.1
140°	650.5	710.9	899.2	1199.4	1338.0
142.5°	670.2	728.1	899.2	1164.0	1287.7
145°	702.2	753.9	900.3	1112.0	1217.6
147.5°	733.3	778.2	901.9	1067.8	1149.4
150°	754.0	793.6	903.6	1041.4	1110.7
152.5°	774.7	807.3	904.5	1021.3	1076.5
155°	801.3	827.6	905.9	995.6	1033.1
157.5°	826.5	845.4	907.2	976.8	1002.9
160°	841.8	857.1	908.1	964.9	985.8
162.5°	855.2	867.2	908.1	954.9	970.5
165°	874.4	882.1	908.1	942.2	953.1
167.5°	887.9	892.8	908.4	932.6	938.3
170°	896.9	899.1	909.3	926.2	928.4
172.5°	903.3	904.5	911.1	922.6	922.2
175°	911.5	911.5	911.5	918.2	916.0
177.5°	914.9	914.0	913.1	917.5	914.0
180°	914.9	914.9	914.9	914.9	914.9

-----



TEST NUMBER: P854890

CATALOG NUMBER: SQ2-PR1-125U-075D-830-UNV-STD-W-4

**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	17.13	17.88	18.17	18.92	20.32	13.85	14.60	14.89	15.64	17.05
	3H	18.35	19.02	19.40	20.07	21.49	14.91	15.58	15.96	16.63	18.05
	4H	18.80	19.43	19.86	20.49	21.91	15.30	15.94	16.37	16.99	18.42
	6H	19.11	19.69	20.18	20.75	22.19	15.63	16.21	16.70	17.27	18.71
	8H	19.19	19.74	20.26	20.82	22.25	15.71	16.27	16.79	17.34	18.77
	12H	19.21	19.74	20.29	20.81	22.27	15.72	16.24	16.80	17.31	18.77
4H	2H	17.19	17.82	18.26	18.88	20.31	14.41	15.04	15.48	16.09	17.52
	3H	18.65	19.18	19.73	20.26	21.70	15.66	16.19	16.74	17.27	18.71
	4H	19.24	19.72	20.32	20.80	22.26	16.16	16.65	17.25	17.72	19.18
	6H	19.69	20.10	20.78	21.20	22.66	16.59	17.01	17.68	18.10	19.56
	8H	19.82	20.20	20.91	21.29	22.77	16.71	17.10	17.81	18.19	19.66
	12H	19.87	20.22	20.98	21.32	22.79	16.73	17.08	17.84	18.18	19.66
8H	4H	19.26	19.65	20.35	20.73	22.21	16.46	16.85	17.55	17.93	19.41
	6H	19.81	20.12	20.92	21.25	22.72	16.99	17.31	18.11	18.44	19.91
	8H	20.00	20.28	21.12	21.39	22.88	17.18	17.46	18.30	18.57	20.06
	12H	20.10	20.35	21.23	21.46	22.98	17.24	17.48	18.36	18.59	20.12
12H	4H	19.21	19.56	20.32	20.66	22.14	16.47	16.82	17.58	17.92	19.40
	6H	19.79	20.07	20.91	21.18	22.67	17.05	17.33	18.17	18.44	19.93
	8H	20.00	20.24	21.12	21.35	22.88	17.26	17.50	18.38	18.61	20.14