

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: P855012

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855012  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-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: -

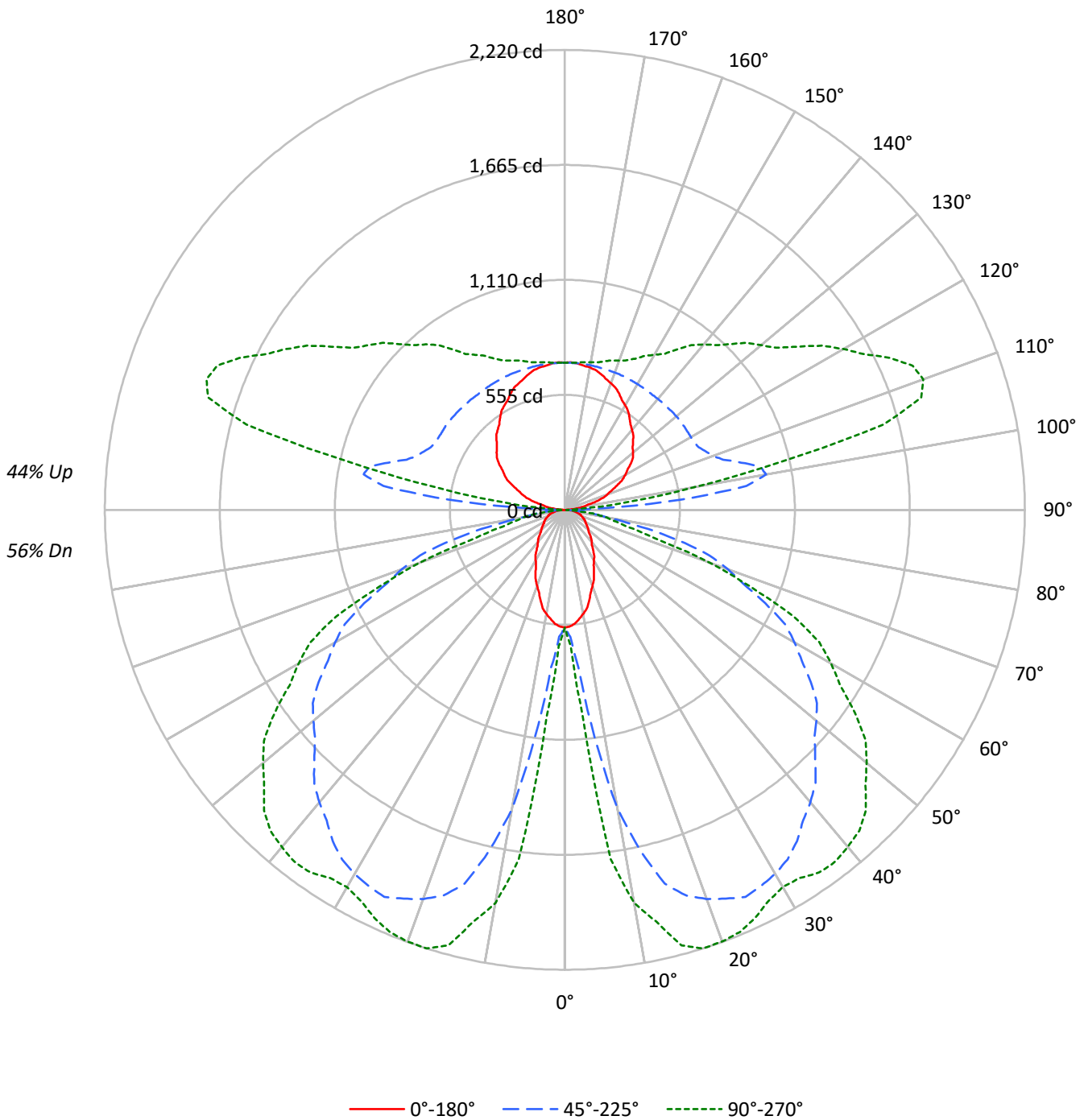
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10038.7 lumens  
Efficiency: N/A  
Efficacy: 122.7 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56  
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

TEST NUMBER: P855012

CATALOG NUMBER: SQ2-FB-100U-125D-830-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P855012

CATALOG NUMBER: SQ2-FB-100U-125D-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	0
RCR																		
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	99	94	90	87	92	88	84	81	76	73	71	64	63	61	54	53	52	47
2	90	82	76	70	83	76	71	66	66	62	58	56	53	50	47	45	43	38
3	82	72	64	58	75	67	60	55	58	52	48	49	45	42	41	38	36	32
4	74	63	55	48	69	59	51	46	51	45	40	43	39	35	36	33	30	27
5	68	56	47	41	63	52	44	39	45	39	34	39	34	30	32	29	26	23
6	62	50	41	35	58	46	39	33	40	34	30	35	30	26	29	25	22	20
7	57	45	36	31	53	42	34	29	36	30	26	31	26	23	26	23	20	17
8	53	40	32	27	49	38	31	25	33	27	23	28	24	20	24	20	17	15
9	49	37	29	24	46	34	27	22	30	24	20	26	21	18	22	18	15	13
10	46	34	26	21	43	31	25	20	28	22	18	24	19	16	20	17	14	12

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

	0°	45°	90°
0°	9169	9169	9169
5°	8938	12391	16242
10°	8371	23996	31604
15°	7577	31219	36378
20°	6710	34343	38096
25°	5934	36727	38721
30°	5244	37824	39198
35°	4681	38483	42141
40°	4258	38849	44776
45°	3927	39030	46887
50°	3702	39780	47738
55°	3612	40814	48116
60°	3701	41356	47879
65°	3862	40791	46525
70°	3998	39442	35188
75°	4429	35427	19420
80°	4575	18280	18029
85°	4539	12653	7577

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 48552 cd/sqm



TEST NUMBER: P855012

CATALOG NUMBER: SQ2-FB-100U-125D-830-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.2	0.9
10°-20°	434.4	4.3
20°-30°	764.2	7.6
30°-40°	989.2	9.9
40°-50°	1091.0	10.9
50°-60°	1018.6	10.1
60°-70°	787.3	7.8
70°-80°	363.2	3.6
80°-90°	70.6	0.7
90°-100°	296.9	3.0
100°-110°	898.1	8.9
110°-120°	876.8	8.7
120°-130°	716.4	7.1
130°-140°	584.8	5.8
140°-150°	455.2	4.5
150°-160°	328.2	3.3
160°-170°	200.9	2.0
170°-180°	67.8	0.7
0°-30°	1293.7	12.9
0°-40°	2282.9	22.7
0°-60°	4392.5	43.8
0°-90°	5613.5	55.9
90°-120°	2071.8	20.6
90°-150°	3828.3	38.1
90°-180°	4425.0	44.1
0°-180°	10038.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	568	568	568	568	568	
5°	552	632	764	933	1002	51
15°	453	894	1868	2091	2176	126
25°	333	1201	2062	2152	2174	153
35°	238	1159	1952	2021	2138	149
45°	172	888	1709	1963	2053	133
55°	128	529	1450	1667	1709	116
65°	101	299	1068	1196	1218	99
75°	71	183	568	306	311	73
85°	24	54	68	46	41	26
90°	0	2	13	8	7	3
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	



TEST NUMBER: P855012

CATALOG NUMBER: SQ2-FB-100U-125D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	567.9	567.9	567.9	567.9	567.9
2.5°	563.6	587.0	613.8	644.7	657.5
5°	551.5	631.7	764.5	932.7	1002.1
7.5°	530.3	693.1	1111.9	1561.8	1700.6
10°	510.6	737.5	1463.6	1853.0	1927.7
12.5°	488.8	796.9	1684.2	1957.9	2034.8
15°	453.3	893.8	1867.7	2090.8	2176.3
17.5°	416.6	1003.0	1952.8	2173.0	2219.5
20°	390.5	1079.3	1998.8	2187.8	2217.2
22.5°	366.4	1136.4	2031.5	2174.8	2206.3
25°	333.1	1200.9	2061.6	2152.2	2173.5
27.5°	300.9	1217.7	2048.5	2108.0	2128.8
30°	281.3	1213.1	2028.8	2073.1	2102.5
32.5°	263.8	1199.8	2000.4	2043.4	2107.0
35°	237.5	1158.7	1952.4	2020.6	2138.0
37.5°	215.2	1092.5	1889.0	2028.6	2141.9
40°	202.0	1043.1	1843.2	2028.3	2124.4
42.5°	188.9	985.1	1790.7	2006.4	2102.5
45°	172.0	887.6	1709.3	1962.6	2053.4
47.5°	156.1	777.8	1634.0	1902.0	1968.2
50°	147.4	702.8	1583.7	1847.1	1900.5
52.5°	138.7	630.0	1533.5	1781.4	1830.6
55°	128.3	528.8	1449.9	1666.6	1709.3
57.5°	119.1	442.1	1355.0	1539.7	1574.4
60°	114.6	395.0	1280.7	1448.0	1482.7
62.5°	108.1	352.2	1197.6	1351.8	1384.4
65°	101.1	298.6	1067.7	1196.4	1217.8
67.5°	91.2	258.9	929.5	1008.3	968.3
70°	84.7	239.5	835.5	860.2	745.4
72.5°	80.3	218.1	732.9	667.9	450.6
75°	71.0	183.2	567.9	306.0	311.3
77.5°	57.9	141.7	373.6	234.9	239.7
80°	49.2	115.9	196.6	191.2	193.9
82.5°	40.4	90.1	135.5	140.8	137.0
85°	24.5	53.9	68.3	46.2	40.9
87.5°	8.7	19.9	13.6	12.4	12.2
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



TEST NUMBER: P855012

CATALOG NUMBER: SQ2-FB-100U-125D-830-UNV-STD-W-4

**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	15.29	16.23	16.18	17.16	18.34	24.02	24.97	24.92	25.89	27.07
	3H	16.02	16.87	16.93	17.81	19.01	25.65	26.50	26.56	27.43	28.64
	4H	16.33	17.13	17.25	18.07	19.29	25.84	26.64	26.76	27.58	28.79
	6H	16.55	17.29	17.49	18.23	19.46	25.93	26.67	26.86	27.61	28.84
	8H	16.61	17.32	17.56	18.28	19.50	25.93	26.64	26.88	27.60	28.83
	12H	16.64	17.31	17.59	18.27	19.52	25.91	26.58	26.86	27.54	28.79
4H	2H	19.70	20.50	20.63	21.44	22.65	24.48	25.28	25.41	26.22	27.43
	3H	20.64	21.31	21.58	22.28	23.51	26.31	26.98	27.25	27.95	29.18
	4H	20.92	21.54	21.88	22.50	23.75	26.55	27.16	27.51	28.13	29.38
	6H	21.06	21.59	22.03	22.58	23.83	26.70	27.23	27.67	28.22	29.47
	8H	21.09	21.58	22.05	22.56	23.83	26.73	27.22	27.70	28.20	29.47
	12H	21.08	21.53	22.07	22.52	23.80	26.71	27.15	27.70	28.15	29.42
8H	4H	22.11	22.60	23.08	23.58	24.85	26.68	27.17	27.65	28.15	29.42
	6H	22.35	22.76	23.34	23.78	25.04	26.89	27.29	27.88	28.32	29.58
	8H	22.42	22.78	23.42	23.79	25.07	26.95	27.31	27.95	28.32	29.60
	12H	22.45	22.77	23.46	23.77	25.10	26.95	27.26	27.95	28.27	29.60
12H	4H	22.13	22.57	23.12	23.57	24.84	26.63	27.08	27.62	28.07	29.35
	6H	22.44	22.80	23.45	23.81	25.10	26.87	27.23	27.87	28.24	29.53
	8H	22.55	22.87	23.56	23.87	25.20	26.94	27.26	27.95	28.26	29.59