

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: P855060

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

Issue Date: 7/12/2024

**Test Information**

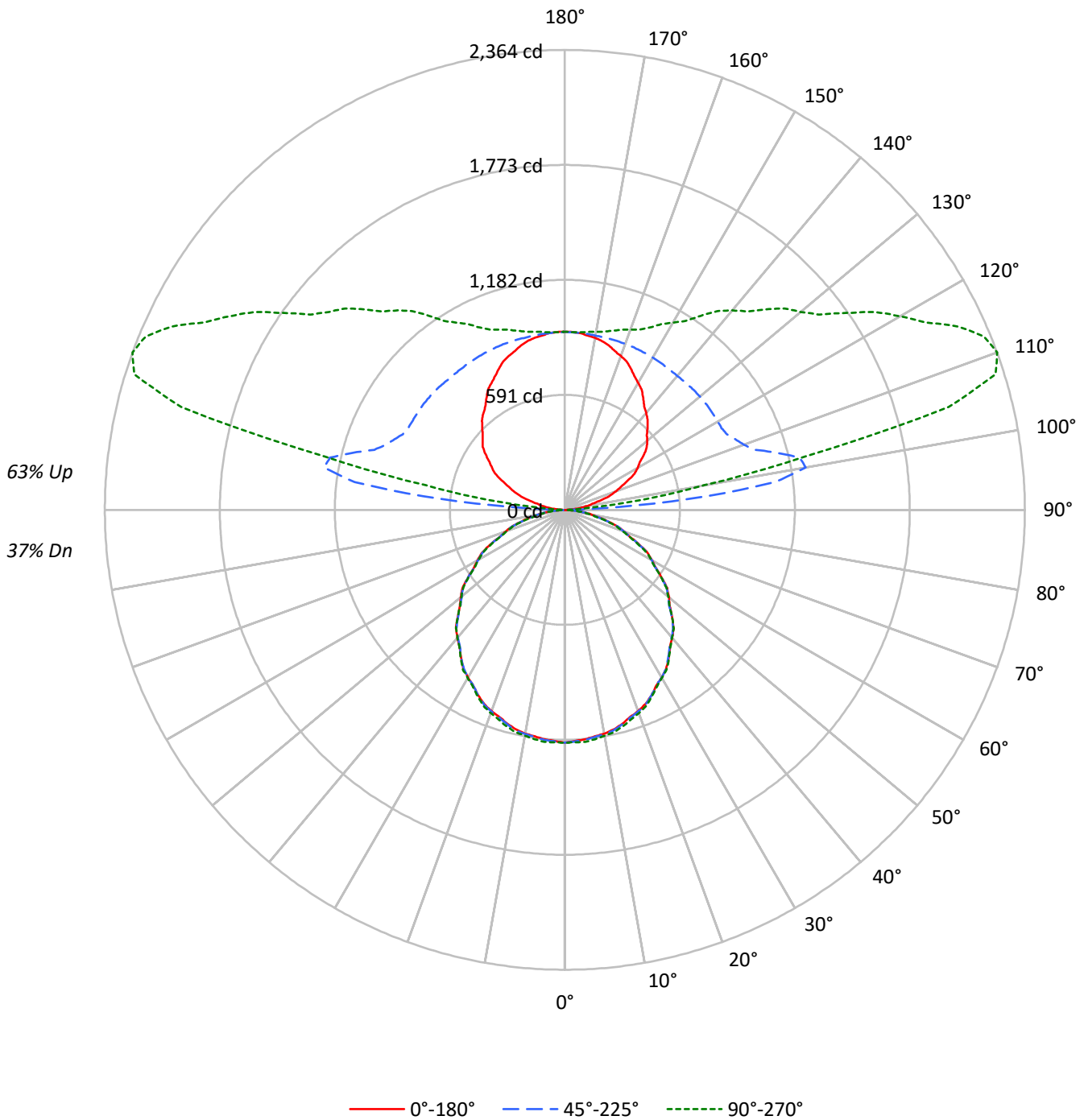
Test Method: LM-79-2019  
Report Number: P855060  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-125U-075D-830-UNV-STD-W-4  
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: 9006.6 lumens  
Efficiency: N/A  
Efficacy: 127.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect  
  
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

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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	0
RCR																		
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	44	44	44	37
1	95	91	87	83	86	82	79	76	67	64	62	52	51	49	39	38	37	31
2	86	79	73	68	78	72	67	62	58	55	51	46	43	41	34	33	31	26
3	79	69	62	56	71	63	57	52	51	47	43	40	37	35	30	28	26	22
4	72	61	53	47	65	56	49	44	45	40	36	36	32	29	27	25	23	19
5	66	54	46	40	59	50	43	37	40	35	31	32	28	25	24	22	20	16
6	60	49	41	35	55	44	37	32	36	31	27	29	25	22	22	19	17	14
7	56	44	36	30	50	40	33	28	33	28	24	26	22	19	20	17	15	12
8	52	40	32	27	47	36	29	25	30	25	21	24	20	17	18	16	14	11
9	48	36	29	24	43	33	26	22	27	22	19	22	18	15	17	14	12	10
10	45	33	26	21	41	30	24	20	25	20	17	20	17	14	16	13	11	9

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

	0°	45°	90°
0°	19328	19328	19328
5°	19191	19245	19402
10°	19146	19200	19335
15°	19029	19084	19275
20°	18916	18945	19112
25°	18743	18743	18857
30°	18550	18550	18610
35°	18325	18260	18388
40°	18082	18014	18082
45°	17801	17728	17801
50°	17535	17369	17412
55°	17126	17078	16988
60°	16695	16591	16485
65°	16202	16011	15828
70°	15243	15168	14861
75°	14348	14042	13637
80°	12738	12441	11985
85°	10263	9355	8762

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 17911 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.2	1.3
10°-20°	323.3	3.6
20°-30°	486.5	5.4
30°-40°	582.1	6.5
40°-50°	600.6	6.7
50°-60°	541.8	6.0
60°-70°	413.5	4.6
70°-80°	237.7	2.6
80°-90°	63.0	0.7
90°-100°	350.0	3.9
100°-110°	1139.4	12.7
110°-120°	1127.1	12.5
120°-130°	921.1	10.2
130°-140°	752.8	8.4
140°-150°	586.4	6.5
150°-160°	422.6	4.7
160°-170°	258.3	2.9
170°-180°	87.2	1.0
0°-30°	923.0	10.2
0°-40°	1505.1	16.7
0°-60°	2647.5	29.4
0°-90°	3361.7	37.3
90°-120°	2616.5	29.1
90°-150°	4876.7	54.1
90°-180°	5645.0	62.7
0°-180°	9006.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1197	1197	1197	1197	1197	
5°	1184	1200	1187	1189	1197	112
15°	1138	1153	1142	1147	1153	321
25°	1052	1063	1052	1054	1058	484
35°	930	936	926	930	933	581
45°	780	784	776	778	780	601
55°	608	612	607	604	604	544
65°	424	422	419	416	414	417
75°	230	228	225	220	219	243
85°	55	52	50	46	47	64
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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1197.1	1197.1	1197.1	1197.1	1197.1
2.5°	1189.3	1203.3	1191.9	1194.6	1195.9
5°	1184.1	1200.1	1187.4	1189.2	1197.1
7.5°	1174.3	1191.6	1177.6	1180.7	1189.7
10°	1167.8	1183.8	1171.1	1172.8	1179.3
12.5°	1157.3	1173.4	1160.6	1163.8	1170.1
15°	1138.4	1152.8	1141.7	1146.8	1153.1
17.5°	1116.6	1131.9	1119.6	1123.9	1129.3
20°	1100.9	1113.7	1102.6	1104.4	1112.3
22.5°	1081.3	1094.1	1084.3	1084.7	1091.5
25°	1052.1	1063.1	1052.1	1053.8	1058.5
27.5°	1018.4	1028.0	1018.4	1020.2	1024.2
30°	995.0	1004.5	995.0	996.5	998.2
32.5°	968.8	977.1	967.5	969.3	973.4
35°	929.7	936.1	926.4	929.7	932.9
37.5°	887.9	892.8	884.6	886.3	889.3
40°	857.9	862.7	854.7	856.3	857.9
42.5°	827.9	831.5	823.3	825.0	827.9
45°	779.6	784.4	776.4	778.0	779.6
47.5°	730.7	733.6	726.8	725.5	728.5
50°	698.1	699.6	691.5	691.6	693.2
52.5°	662.9	664.5	658.9	656.3	657.9
55°	608.4	611.6	606.7	603.5	603.5
57.5°	553.6	556.4	550.3	548.7	548.4
60°	517.0	518.6	513.8	512.1	510.5
62.5°	480.5	480.9	475.9	474.3	472.7
65°	424.1	422.5	419.1	415.9	414.3
67.5°	360.8	362.4	359.2	353.9	353.9
70°	322.9	324.5	321.3	314.8	314.8
72.5°	286.4	285.5	283.5	278.3	275.7
75°	230.0	228.4	225.1	220.1	218.6
77.5°	173.6	172.0	170.3	164.1	165.4
80°	137.0	135.5	133.8	128.9	128.9
82.5°	104.4	101.5	99.8	95.0	95.0
85°	55.4	52.2	50.5	45.7	47.3
87.5°	15.6	15.0	14.6	11.8	11.8
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



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**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

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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	16.96	17.73	18.02	18.79	20.23	16.88	17.65	17.94	18.71	20.15
	3H	18.74	19.42	19.80	20.49	21.95	18.62	19.30	19.68	20.37	21.83
	4H	19.39	20.04	20.47	21.11	22.58	19.24	19.89	20.32	20.96	22.43
	6H	19.85	20.45	20.94	21.53	23.01	19.67	20.27	20.76	21.35	22.82
	8H	19.99	20.56	21.08	21.65	23.12	19.79	20.36	20.88	21.45	22.92
	12H	20.06	20.60	21.16	21.69	23.18	19.84	20.38	20.93	21.47	22.96
4H	2H	17.50	18.15	18.59	19.23	20.69	17.44	18.09	18.53	19.16	20.63
	3H	19.48	20.02	20.57	21.12	22.60	19.37	19.92	20.46	21.02	22.49
	4H	20.27	20.77	21.36	21.86	23.35	20.12	20.62	21.22	21.71	23.21
	6H	20.85	21.28	21.96	22.39	23.88	20.67	21.10	21.78	22.21	23.70
	8H	21.04	21.44	22.14	22.54	24.05	20.83	21.23	21.94	22.34	23.85
	12H	21.13	21.50	22.26	22.61	24.13	20.91	21.27	22.03	22.39	23.90
8H	4H	20.51	20.91	21.61	22.01	23.52	20.38	20.78	21.48	21.88	23.39
	6H	21.22	21.55	22.35	22.70	24.20	21.05	21.38	22.18	22.53	24.04
	8H	21.49	21.78	22.62	22.90	24.43	21.29	21.58	22.43	22.71	24.24
	12H	21.65	21.90	22.79	23.03	24.59	21.42	21.68	22.56	22.80	24.36
12H	4H	20.49	20.86	21.62	21.97	23.49	20.37	20.74	21.50	21.85	23.37
	6H	21.26	21.55	22.40	22.68	24.21	21.10	21.39	22.24	22.52	24.05
	8H	21.55	21.80	22.69	22.93	24.49	21.36	21.62	22.50	22.74	24.30