

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: P855426

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855426  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-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: -

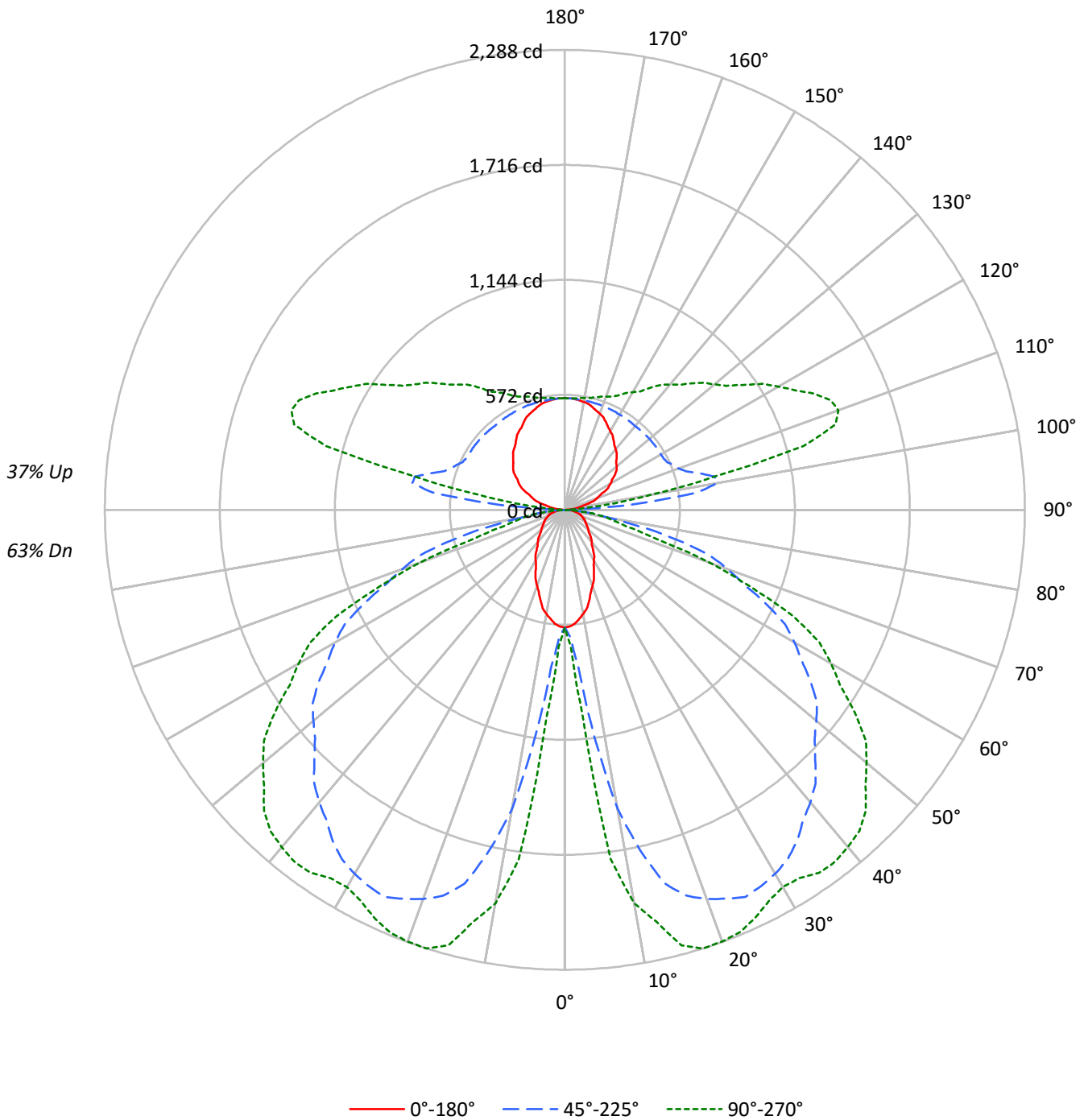
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9226.5 lumens  
Efficiency: N/A  
Efficacy: 127.3 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: 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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68	63
1	100	96	92	88	94	90	87	83	79	76	74	69	67	65	60	58	57	52
2	91	83	77	71	85	78	72	68	69	64	60	60	57	54	52	49	47	43
3	83	73	65	59	77	68	61	56	60	55	50	52	48	45	45	42	39	36
4	75	64	56	49	70	60	53	47	53	47	42	46	42	38	40	36	33	30
5	69	57	48	42	64	53	46	40	47	41	36	41	36	32	36	32	29	26
6	63	50	42	36	59	48	40	34	42	36	31	37	32	28	32	28	25	22
7	58	45	37	31	54	43	35	30	38	32	27	33	28	24	29	25	22	19
8	54	41	33	27	50	39	31	26	34	28	24	30	25	21	26	22	19	17
9	50	37	29	24	47	35	28	23	31	25	21	28	23	19	24	20	17	15
10	47	34	26	21	44	32	25	21	29	23	19	25	21	17	22	18	15	13

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

	0°	45°	90°
0°	9452	9452	9452
5°	9214	12772	16741
10°	8629	24733	32577
15°	7809	32179	37496
20°	6916	35398	39268
25°	6116	37857	39913
30°	5407	38988	40404
35°	4827	39665	43438
40°	4390	40042	46152
45°	4048	40231	48327
50°	3818	41003	49205
55°	3724	42069	49596
60°	3817	42625	49351
65°	3981	42044	47958
70°	4121	40655	36269
75°	4566	36519	20012
80°	4714	18847	18587
85°	4687	13042	7818

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 50045 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.1	1.1
10°-20°	447.7	4.9
20°-30°	787.7	8.5
30°-40°	1019.6	11.1
40°-50°	1124.5	12.2
50°-60°	1049.9	11.4
60°-70°	811.5	8.8
70°-80°	374.3	4.1
80°-90°	72.0	0.8
90°-100°	210.2	2.3
100°-110°	696.8	7.6
110°-120°	691.6	7.5
120°-130°	563.3	6.1
130°-140°	457.8	5.0
140°-150°	355.5	3.9
150°-160°	256.2	2.8
160°-170°	156.9	1.7
170°-180°	53.0	0.6
0°-30°	1333.5	14.5
0°-40°	2353.1	25.5
0°-60°	4527.5	49.1
0°-90°	5785.3	62.7
90°-120°	1598.6	17.3
90°-150°	2975.2	32.2
90°-180°	3441.0	37.3
0°-180°	9226.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	568	651	788	961	1033	53
15°	467	921	1925	2155	2243	130
25°	343	1238	2125	2218	2240	158
35°	245	1194	2012	2083	2204	154
45°	177	915	1762	2023	2116	137
55°	132	545	1494	1718	1762	119
65°	104	308	1100	1233	1255	102
75°	73	189	585	315	321	75
85°	25	56	70	48	42	26
90°	0	1	4	4	4	2
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°	585.4	585.4	585.4	585.4	585.4
2.5°	581.0	605.1	632.7	664.5	677.7
5°	568.5	651.1	788.0	961.3	1032.9
7.5°	546.6	714.4	1146.1	1609.8	1752.9
10°	526.3	760.2	1508.6	1910.0	1987.0
12.5°	503.8	821.4	1736.0	2018.1	2097.4
15°	467.2	921.2	1925.1	2155.1	2243.2
17.5°	429.5	1033.8	2012.9	2239.8	2287.7
20°	402.5	1112.5	2060.2	2255.1	2285.4
22.5°	377.7	1171.3	2094.0	2241.6	2274.2
25°	343.3	1237.8	2125.0	2218.3	2240.4
27.5°	310.1	1255.1	2111.5	2172.8	2194.2
30°	290.0	1250.4	2091.2	2136.9	2167.2
32.5°	271.9	1236.7	2061.9	2106.2	2171.7
35°	244.9	1194.3	2012.4	2082.7	2203.8
37.5°	221.8	1126.1	1947.0	2091.0	2207.7
40°	208.3	1075.2	1899.8	2090.6	2189.7
42.5°	194.7	1015.4	1845.8	2068.1	2167.2
45°	177.3	914.8	1761.9	2022.9	2116.5
47.5°	160.9	801.7	1684.2	1960.4	2028.7
50°	152.0	724.4	1632.4	1903.9	1958.9
52.5°	143.0	649.4	1580.6	1836.2	1886.9
55°	132.3	545.1	1494.5	1717.8	1761.9
57.5°	122.7	455.7	1396.6	1587.0	1622.8
60°	118.2	407.2	1320.0	1492.5	1528.3
62.5°	111.4	363.0	1234.4	1393.4	1426.9
65°	104.2	307.8	1100.5	1233.2	1255.3
67.5°	94.0	266.9	958.1	1039.3	998.0
70°	87.3	246.8	861.2	886.6	768.3
72.5°	82.7	224.8	755.4	688.4	464.4
75°	73.2	188.8	585.4	315.4	320.8
77.5°	59.7	146.0	385.0	242.2	247.1
80°	50.7	119.5	202.7	197.1	199.9
82.5°	41.6	92.9	139.6	145.1	141.2
85°	25.3	55.6	70.4	47.7	42.2
87.5°	9.0	20.3	12.0	12.2	12.2
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	15.95	16.98	16.78	17.84	18.91	24.69	25.71	25.52	26.57	27.65
	3H	16.69	17.61	17.54	18.48	19.59	26.32	27.24	27.17	28.11	29.21
	4H	17.00	17.87	17.87	18.75	19.86	26.51	27.38	27.37	28.26	29.37
	6H	17.23	18.03	18.10	18.91	20.04	26.61	27.41	27.48	28.29	29.42
	8H	17.29	18.06	18.18	18.96	20.08	26.61	27.38	27.50	28.28	29.41
	12H	17.33	18.05	18.22	18.95	20.10	26.59	27.32	27.48	28.22	29.37
4H	2H	20.37	21.24	21.24	22.12	23.23	25.15	26.02	26.02	26.90	28.01
	3H	21.32	22.04	22.20	22.95	24.08	26.99	27.72	27.87	28.63	29.75
	4H	21.61	22.27	22.50	23.18	24.33	27.24	27.90	28.13	28.80	29.96
	6H	21.75	22.32	22.66	23.25	24.41	27.39	27.96	28.30	28.89	30.05
	8H	21.78	22.31	22.69	23.23	24.40	27.42	27.95	28.33	28.88	30.05
	12H	21.78	22.26	22.71	23.20	24.37	27.40	27.88	28.33	28.83	30.00
8H	4H	22.80	23.33	23.71	24.26	25.43	27.37	27.90	28.28	28.83	30.00
	6H	23.04	23.48	23.98	24.45	25.62	27.58	28.02	28.52	28.99	30.16
	8H	23.12	23.51	24.07	24.46	25.65	27.65	28.04	28.59	28.99	30.18
	12H	23.15	23.49	24.10	24.44	25.68	27.65	27.99	28.60	28.94	30.18
12H	4H	22.83	23.30	23.76	24.25	25.42	27.33	27.81	28.26	28.75	29.93
	6H	23.14	23.53	24.09	24.49	25.67	27.57	27.96	28.52	28.91	30.10
	8H	23.25	23.59	24.21	24.54	25.78	27.64	27.98	28.60	28.93	30.17