

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: P854960

Luminaire Tested: SQ2-PH1-050U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

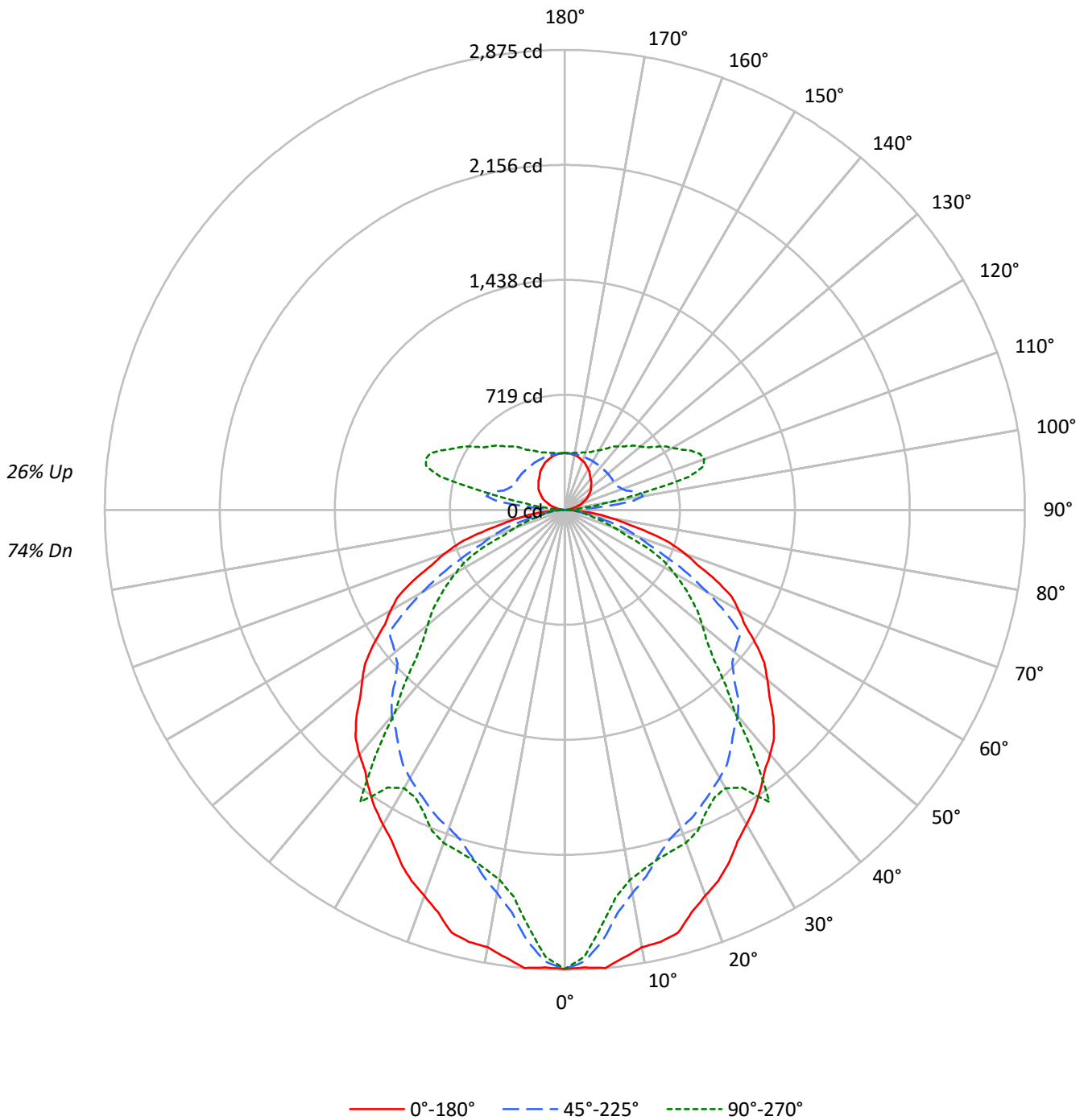
Test Method: LM-79-2019  
Report Number: P854960  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-050U-125D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8552.9 lumens  
Efficiency: N/A  
Efficacy: 133.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 64  
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	0	
RCR																						
0	113	113	113	113	107	107	107	107	97	97	97	87	87	87	78	78	78	74				
1	104	99	95	92	98	94	91	88	86	83	80	77	75	74	70	68	67	63				
2	95	87	81	75	90	83	77	73	75	71	67	68	65	62	62	59	57	53				
3	86	77	69	63	82	73	66	61	67	61	57	61	56	52	55	51	48	45				
4	79	68	60	54	75	65	58	52	59	53	48	54	49	45	49	45	42	39				
5	73	61	52	46	69	58	51	45	53	47	42	49	43	39	44	40	37	34				
6	67	55	46	40	64	52	45	39	48	42	37	44	39	35	40	36	32	30				
7	62	50	41	36	59	48	40	35	44	37	33	40	35	31	37	32	29	26				
8	58	45	37	32	55	43	36	31	40	34	29	37	31	27	34	29	26	24				
9	54	41	34	28	51	40	33	28	37	31	26	34	29	25	31	27	23	21				
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	29	25	21	19				

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

	0°	45°	90°
0°	46335	46335	46335
5°	46601	43814	42352
10°	45529	39887	38499
15°	45733	37519	37747
20°	44103	36361	38050
25°	43294	36191	37164
30°	42355	36094	37468
35°	42034	35684	43919
40°	42069	35453	34819
45°	42087	34104	29990
50°	41496	34774	28123
55°	40969	37740	26978
60°	40558	33063	25304
65°	39851	26812	22013
70°	37638	22815	15725
75°	33562	17205	11928
80°	27420	11176	11176
85°	17191	10115	7577

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 42087 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.5	3.0
10°-20°	664.2	7.8
20°-30°	973.9	11.4
30°-40°	1179.5	13.8
40°-50°	1159.9	13.6
50°-60°	1009.7	11.8
60°-70°	701.9	8.2
70°-80°	332.8	3.9
80°-90°	73.8	0.9
90°-100°	141.4	1.7
100°-110°	448.5	5.2
110°-120°	439.8	5.1
120°-130°	357.9	4.2
130°-140°	291.8	3.4
140°-150°	227.5	2.7
150°-160°	163.9	1.9
160°-170°	100.1	1.2
170°-180°	33.8	0.4
0°-30°	1890.7	22.1
0°-40°	3070.1	35.9
0°-60°	5239.7	61.3
0°-90°	6348.2	74.2
90°-120°	1029.7	12.0
90°-150°	1906.8	22.3
90°-180°	2205.0	25.8
0°-180°	8552.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2870	2870	2870	2870	2870	
5°	2875	2873	2703	2618	2613	270
15°	2736	2437	2245	2229	2258	763
25°	2430	2067	2032	2094	2086	1118
35°	2133	1724	1810	1966	2228	1336
45°	1843	1365	1494	1546	1313	1417
55°	1455	1063	1341	966	958	1300
65°	1043	731	702	576	576	1025
75°	538	372	276	196	191	570
85°	93	61	55	44	41	124
90°	0	1	3	3	3	4
95°	19	57	257	95	61	22
105°	78	110	442	842	807	82
115°	140	166	357	742	873	138
125°	193	216	352	582	686	172
135°	233	256	350	500	564	180
145°	272	293	350	432	470	171
155°	310	321	351	386	401	143
165°	338	342	352	365	368	95
175°	354	353	354	356	355	34
180°	355	355	355	355	355	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2869.8	2869.8	2869.8	2869.8	2869.8
2.5°	2863.2	2893.2	2826.2	2799.8	2795.5
5°	2875.3	2872.6	2703.3	2618.5	2613.1
7.5°	2822.9	2740.1	2537.8	2444.3	2440.0
10°	2777.0	2651.5	2432.9	2348.2	2348.2
12.5°	2766.1	2567.9	2347.8	2285.3	2298.0
15°	2736.0	2437.0	2244.6	2228.8	2258.2
17.5°	2636.7	2314.7	2164.3	2200.0	2234.2
20°	2566.8	2249.0	2116.2	2182.5	2214.5
22.5°	2507.8	2185.8	2081.3	2153.8	2170.8
25°	2430.2	2067.2	2031.5	2094.2	2086.1
27.5°	2337.4	1958.3	1981.8	2020.2	2025.0
30°	2271.8	1892.7	1936.0	1975.0	2009.7
32.5°	2208.5	1816.5	1885.7	1978.2	2057.8
35°	2132.6	1724.1	1810.4	1966.5	2228.2
37.5°	2052.8	1615.0	1734.4	1865.8	1949.1
40°	1996.0	1536.8	1682.1	1844.2	1652.0
42.5°	1934.9	1475.6	1603.4	1812.8	1488.2
45°	1843.2	1365.3	1493.6	1545.7	1313.4
47.5°	1735.0	1279.5	1419.3	1288.9	1198.1
50°	1652.0	1222.1	1384.4	1178.2	1119.6
52.5°	1571.1	1162.6	1360.4	1087.0	1047.4
55°	1455.4	1062.9	1340.7	966.5	958.4
57.5°	1332.5	961.4	1185.6	861.5	875.5
60°	1256.0	895.6	1023.9	799.7	783.6
62.5°	1175.2	831.9	873.2	721.0	705.1
65°	1043.1	730.7	701.8	576.2	576.2
67.5°	897.8	625.5	568.5	471.5	407.4
70°	797.3	557.1	483.3	375.8	333.1
72.5°	690.3	484.1	396.0	308.0	258.8
75°	538.0	372.4	275.8	196.5	191.2
77.5°	388.8	268.2	185.7	145.9	146.3
80°	294.9	204.1	120.2	117.5	120.2
82.5°	207.5	140.2	89.5	93.4	94.0
85°	92.8	60.8	54.6	43.6	40.9
87.5°	19.7	17.8	11.6	11.6	11.6
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.2	24.8	79.3	26.3	18.5
95°	19.0	57.2	256.8	95.2	61.4
97.5°	35.3	74.2	435.0	271.8	166.8
100°	46.9	84.0	495.7	451.9	293.6
102.5°	59.4	94.7	484.9	663.7	508.0
105°	78.1	109.8	442.1	842.1	807.2
107.5°	96.9	126.2	401.3	860.8	907.9
110°	109.4	137.8	380.7	839.3	926.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	121.9	148.6	369.0	802.3	913.2
115°	139.5	165.8	357.3	742.0	873.1
117.5°	156.7	181.6	352.5	684.0	816.1
120°	167.4	191.5	351.6	648.2	776.0
122.5°	178.2	201.4	351.6	619.4	738.4
125°	193.1	216.1	351.6	581.8	685.5
127.5°	206.3	228.4	351.6	552.7	641.1
130°	214.4	237.3	351.6	535.5	615.2
132.5°	222.4	245.3	350.8	521.9	593.7
135°	233.4	256.2	349.5	500.5	563.9
137.5°	244.1	268.1	349.3	480.0	536.6
140°	251.2	275.2	348.4	465.6	516.9
142.5°	260.2	283.2	349.3	451.2	499.1
145°	272.4	293.2	349.5	431.8	470.0
147.5°	284.7	302.3	349.7	414.7	445.9
150°	293.6	307.8	350.6	404.8	429.9
152.5°	300.8	313.2	350.6	396.6	417.3
155°	310.4	321.3	350.6	385.5	400.8
157.5°	320.7	328.1	351.6	378.8	389.2
160°	326.0	332.5	351.6	374.2	382.9
162.5°	331.4	336.1	351.6	370.6	376.7
165°	338.3	341.6	351.6	365.2	368.5
167.5°	344.7	345.6	352.8	361.4	364.2
170°	348.4	348.4	352.8	359.5	360.6
172.5°	350.2	351.0	352.8	357.7	358.0
175°	353.9	352.9	353.9	356.2	355.0
177.5°	355.0	354.1	354.1	355.9	354.1
180°	355.0	355.0	355.0	355.0	355.0

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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	22.65	23.77	23.37	24.51	25.38	21.32	22.44	22.04	23.18	24.06
	3H	24.69	25.70	25.43	26.44	27.36	22.38	23.38	23.11	24.13	25.04
	4H	25.44	26.38	26.19	27.14	28.06	22.60	23.55	23.35	24.30	25.23
	6H	25.94	26.81	26.70	27.57	28.51	22.76	23.63	23.52	24.40	25.33
	8H	26.07	26.90	26.84	27.68	28.62	22.80	23.63	23.57	24.42	25.35
	12H	26.12	26.91	26.90	27.69	28.66	22.81	23.60	23.59	24.38	25.34
4H	2H	23.06	24.00	23.81	24.76	25.68	22.00	22.94	22.75	23.70	24.62
	3H	25.19	25.97	25.95	26.77	27.71	23.20	23.98	23.97	24.78	25.72
	4H	26.01	26.73	26.79	27.52	28.49	23.49	24.20	24.27	24.99	25.96
	6H	26.61	27.23	27.41	28.05	29.02	23.71	24.32	24.51	25.14	26.12
	8H	26.79	27.36	27.59	28.18	29.16	23.77	24.35	24.57	25.16	26.15
	12H	26.87	27.38	27.69	28.22	29.21	23.79	24.31	24.61	25.14	26.14
8H	4H	26.05	26.63	26.85	27.44	28.43	23.72	24.30	24.53	25.11	26.10
	6H	26.71	27.19	27.55	28.04	29.03	24.00	24.48	24.84	25.34	26.32
	8H	26.94	27.36	27.79	28.22	29.22	24.11	24.53	24.95	25.39	26.39
	12H	27.07	27.44	27.91	28.28	29.34	24.16	24.54	25.01	25.38	26.44
12H	4H	26.01	26.53	26.84	27.37	28.36	23.73	24.25	24.55	25.08	26.08
	6H	26.69	27.11	27.53	27.96	28.97	24.04	24.46	24.88	25.31	26.32
	8H	26.93	27.30	27.78	28.15	29.21	24.16	24.54	25.01	25.38	26.44