

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: P854423

Luminaire Tested: SQ2-WBN-025U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

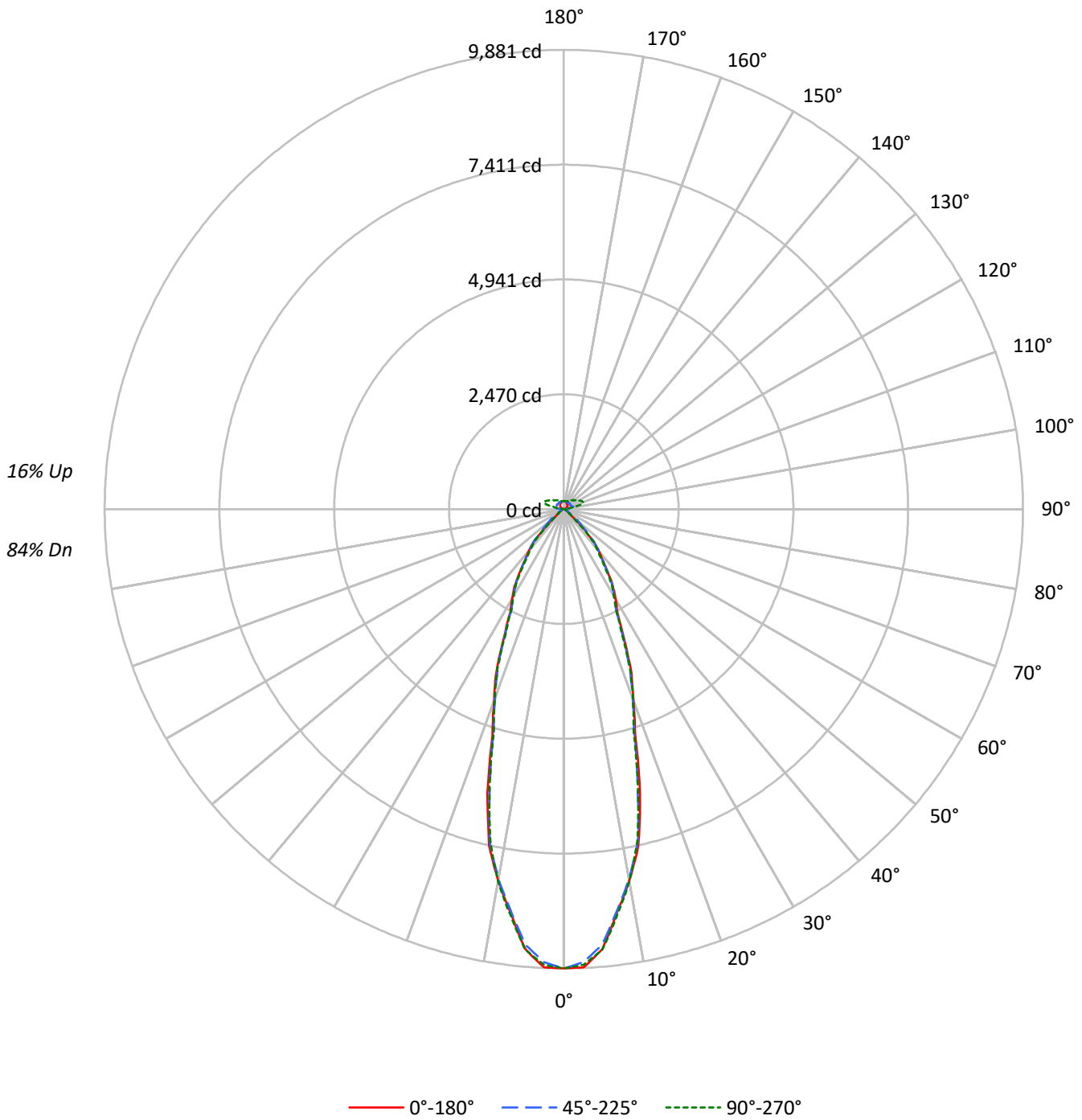
Test Method: LM-79-2019  
Report Number: P854423  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2308-130-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBN-025U-125D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6800.7 lumens  
Efficiency: N/A  
Efficacy: 119.1 lumens/watt  
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 57.1  
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	115	115	115	115	111	111	111	111	102	102	102	95	95	95	88	88	88	84
1	109	106	103	101	105	103	100	98	96	94	92	89	88	87	83	82	82	79
2	103	98	94	90	99	95	91	88	89	86	84	84	81	79	79	77	76	73
3	98	91	85	81	94	88	83	80	83	79	76	79	76	73	75	72	70	68
4	92	84	78	74	89	82	77	73	78	74	70	74	71	68	71	68	65	63
5	87	79	73	68	85	77	71	67	73	69	65	70	66	63	67	64	61	59
6	83	74	67	63	80	72	66	62	69	64	61	66	62	59	63	60	57	56
7	79	69	63	59	76	68	62	58	65	60	57	62	58	55	60	57	54	52
8	75	65	59	55	73	64	58	54	61	57	53	59	55	52	57	54	51	49
9	71	61	55	51	69	60	55	51	58	53	50	56	52	49	54	51	48	47
10	68	58	52	48	66	57	52	48	55	51	47	54	49	46	52	48	46	44

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

	0°	45°	90°
0°	159532	159532	159532
5°	154033	152500	154205
10°	133141	132509	133456
15°	105946	102606	103017
20°	75263	74269	74811
25°	54147	53085	52711
30°	41372	40261	40162
35°	32477	31923	31093
40°	24605	24272	23090
45°	13769	16449	12287
50°	4843	10128	4270
55°	2961	5526	2812
60°	2264	2887	2096
65°	2074	2143	1941
70°	1987	1987	1822
75°	1859	1859	1747
80°	1627	1627	1627
85°	1630	1297	1297

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 16449 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	857.7	12.6
10°-20°	1704.6	25.1
20°-30°	1411.6	20.8
30°-40°	1015.5	14.9
40°-50°	517.3	7.6
50°-60°	134.7	2.0
60°-70°	55.9	0.8
70°-80°	31.0	0.5
80°-90°	9.6	0.1
90°-100°	69.3	1.0
100°-110°	215.5	3.2
110°-120°	210.9	3.1
120°-130°	172.1	2.5
130°-140°	140.8	2.1
140°-150°	109.9	1.6
150°-160°	79.3	1.2
160°-170°	48.5	0.7
170°-180°	16.3	0.2
0°-30°	3973.9	58.4
0°-40°	4989.5	73.4
0°-60°	5641.5	83.0
0°-90°	5738.0	84.4
90°-120°	495.7	7.3
90°-150°	918.5	13.5
90°-180°	1063.0	15.6
0°-180°	6800.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9881	9881	9881	9881	9881	
5°	9504	9490	9409	9545	9514	857
15°	6338	6266	6138	6182	6163	1721
25°	3039	3034	2980	2954	2959	1430
35°	1648	1658	1620	1593	1578	1034
45°	603	694	720	670	538	482
55°	105	122	196	114	100	103
65°	54	56	56	52	51	54
75°	30	30	30	28	28	31
85°	9	9	7	9	7	9
90°	0	1	3	3	3	1
95°	10	28	127	47	30	11
105°	38	53	212	405	387	40
115°	67	80	172	355	416	66
125°	94	104	170	280	328	83
135°	112	125	169	241	271	87
145°	131	142	169	208	227	82
155°	150	155	170	187	193	69
165°	165	166	171	176	179	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9880.7	9880.7	9880.7	9880.7	9880.7
2.5°	9865.3	9848.8	9754.5	9832.6	9813.4
5°	9503.8	9490.1	9409.2	9545.2	9514.4
7.5°	8757.5	8769.1	8721.7	8841.9	8809.0
10°	8120.9	8151.7	8082.3	8256.7	8140.1
12.5°	7418.3	7398.4	7350.3	7377.2	7312.8
15°	6338.2	6266.3	6138.4	6181.8	6163.0
17.5°	5105.3	5133.1	5022.2	5017.5	4996.3
20°	4380.3	4388.9	4322.5	4357.5	4354.0
22.5°	3797.0	3798.7	3713.9	3765.1	3734.2
25°	3039.4	3034.3	2979.8	2953.6	2958.8
27.5°	2492.5	2471.3	2430.1	2447.4	2434.7
30°	2219.1	2201.9	2159.5	2169.7	2154.2
32.5°	1973.7	1974.4	1930.9	1925.8	1914.4
35°	1647.7	1657.9	1619.6	1593.0	1577.5
37.5°	1356.7	1366.3	1333.9	1295.0	1282.0
40°	1167.4	1174.2	1151.6	1105.8	1095.5
42.5°	961.3	990.0	967.9	924.6	902.0
45°	603.0	693.8	720.4	670.1	538.1
47.5°	305.0	430.8	513.9	379.5	250.0
50°	192.8	280.2	403.2	228.3	170.0
52.5°	147.9	192.8	321.8	168.6	136.4
55°	105.2	122.3	196.3	113.6	99.9
57.5°	81.3	90.9	117.4	86.0	77.5
60°	70.1	77.0	89.4	73.4	64.9
62.5°	63.1	67.2	72.6	62.3	59.2
65°	54.3	56.1	56.1	52.5	50.8
67.5°	46.3	48.0	47.7	45.9	44.2
70°	42.1	43.8	42.1	40.3	38.6
72.5°	36.5	38.2	36.5	36.1	34.4
75°	29.8	29.8	29.8	28.0	28.0
77.5°	23.1	23.5	21.7	21.7	20.3
80°	17.5	19.2	17.5	17.5	17.5
82.5°	14.7	15.1	13.3	13.3	13.3
85°	8.8	8.8	7.0	8.7	7.0
87.5°	2.8	3.0	3.4	3.4	3.4
90°	0.0	1.0	3.2	3.2	3.2
92.5°	3.4	11.8	40.1	13.2	10.7
95°	9.5	27.9	127.1	46.9	30.5
97.5°	17.2	36.3	210.5	131.0	82.6
100°	23.1	40.6	237.4	222.1	148.1
102.5°	29.0	45.6	232.4	317.2	249.0
105°	37.8	53.2	212.2	405.1	386.6
107.5°	46.6	61.0	192.9	411.8	432.2
110°	52.5	66.9	182.8	402.2	442.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	58.4	72.0	177.7	384.8	435.5
115°	67.2	79.6	172.3	355.4	416.0
117.5°	75.8	87.1	170.0	327.3	389.3
120°	80.9	92.2	169.1	311.2	370.8
122.5°	85.9	97.2	170.0	297.7	352.3
125°	93.5	103.8	170.2	279.5	327.7
127.5°	99.6	110.1	170.2	265.9	306.9
130°	102.9	114.2	170.2	258.2	295.2
132.5°	107.1	118.4	169.3	251.4	285.9
135°	112.4	124.7	169.1	241.2	271.0
137.5°	118.5	129.8	169.1	231.1	258.2
140°	121.9	133.2	169.1	224.3	249.0
142.5°	126.1	136.5	169.1	217.5	239.7
145°	131.3	141.6	169.1	208.4	226.9
147.5°	137.6	146.4	170.2	199.9	214.5
150°	141.8	149.0	170.2	195.6	206.9
152.5°	145.2	151.5	170.2	191.4	201.1
155°	150.2	155.4	170.2	187.1	193.3
157.5°	155.3	159.2	170.2	183.3	187.2
160°	158.6	161.7	170.2	180.8	183.8
162.5°	161.1	163.4	170.2	179.1	181.3
165°	164.9	166.0	171.2	176.5	178.6
167.5°	167.2	167.4	170.2	175.0	176.1
170°	168.1	169.1	170.2	173.4	174.4
172.5°	169.8	170.0	171.0	172.5	172.7
175°	171.2	171.2	171.2	172.3	171.2
177.5°	171.2	171.2	171.2	171.2	171.2
180°	171.2	171.2	171.2	171.2	171.2

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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	7.52	8.41	8.15	9.02	9.71	7.13	8.02	7.76	8.63	9.32
	3H	8.57	9.36	9.22	9.98	10.71	8.14	8.92	8.78	9.54	10.27
	4H	9.00	9.73	9.67	10.37	11.11	8.56	9.30	9.23	9.93	10.68
	6H	9.32	9.99	9.99	10.64	11.39	8.90	9.57	9.57	10.22	10.97
	8H	9.42	10.05	10.11	10.72	11.48	9.00	9.63	9.69	10.30	11.06
	12H	9.49	10.09	10.18	10.75	11.53	9.05	9.66	9.74	10.31	11.09
4H	2H	7.75	8.48	8.42	9.11	9.86	7.42	8.15	8.09	8.78	9.53
	3H	9.05	9.65	9.72	10.33	11.08	8.67	9.27	9.34	9.94	10.70
	4H	9.61	10.15	10.30	10.83	11.63	9.22	9.76	9.91	10.44	11.23
	6H	10.07	10.53	10.78	11.23	12.04	9.68	10.14	10.40	10.85	11.66
	8H	10.22	10.65	10.94	11.35	12.16	9.84	10.27	10.55	10.97	11.78
	12H	10.33	10.71	11.06	11.44	12.25	9.93	10.30	10.66	11.03	11.85
8H	4H	9.76	10.18	10.47	10.89	11.70	9.40	9.83	10.12	10.53	11.35
	6H	10.34	10.68	11.08	11.43	12.25	9.99	10.33	10.73	11.08	11.90
	8H	10.58	10.88	11.34	11.63	12.47	10.22	10.53	10.98	11.28	12.11
	12H	10.77	11.04	11.53	11.77	12.68	10.40	10.66	11.15	11.40	12.30
12H	4H	9.74	10.11	10.47	10.84	11.66	9.39	9.77	10.13	10.50	11.32
	6H	10.35	10.66	11.11	11.41	12.24	10.02	10.32	10.78	11.07	11.91
	8H	10.63	10.90	11.39	11.63	12.53	10.29	10.56	11.05	11.29	12.19