

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: P854260

Luminaire Tested: SQ2-PW1-050U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854260  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-050U-075D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

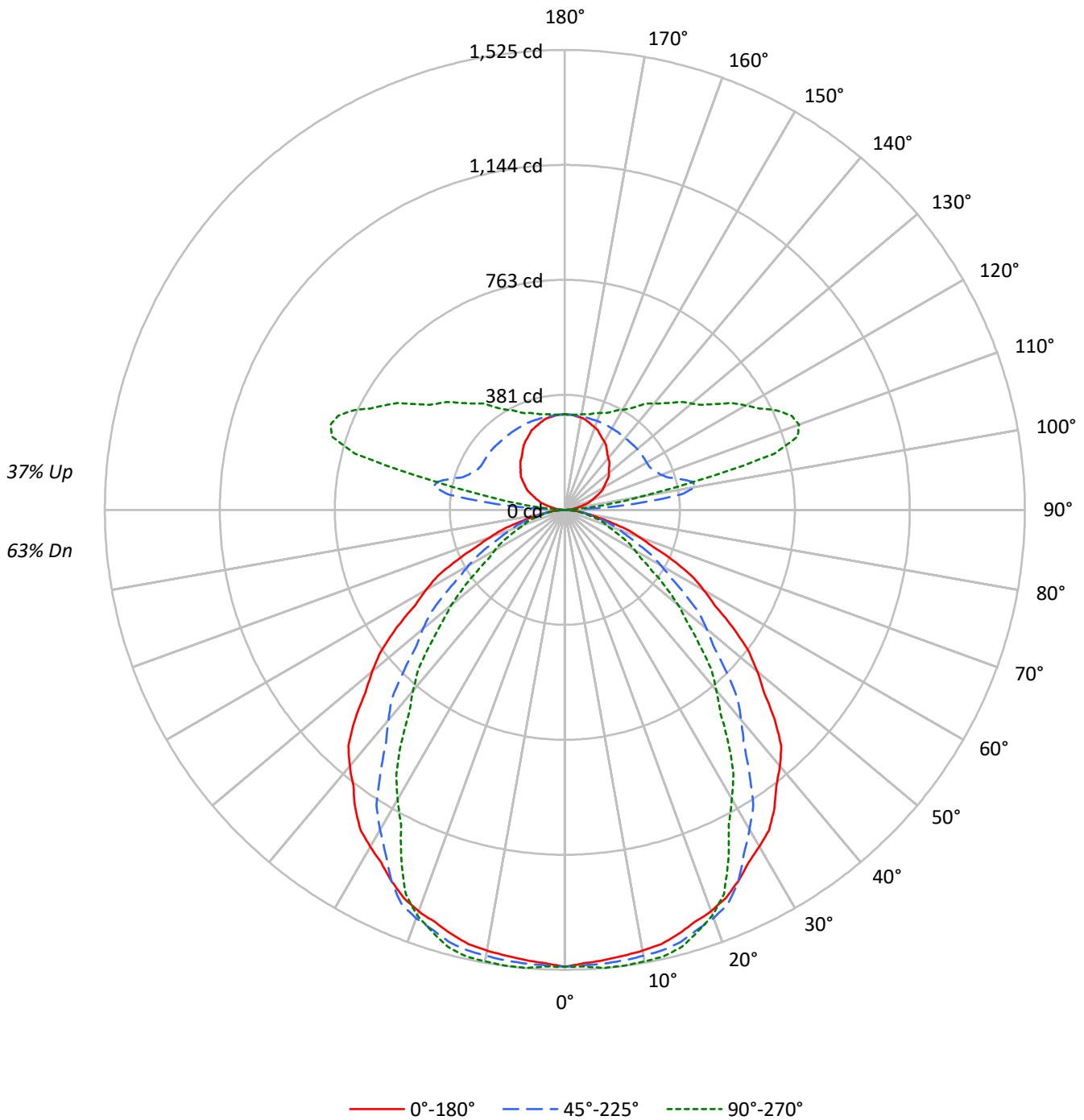
Lumens per Lamp: N/A  
Luminaire Lumens: 5326.8 lumens  
Efficiency: N/A  
Efficacy: 128.4 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 41.5  
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	50	30	10
RCR																				
0	110	110	110	110	103	103	103	103	91	91	91	79	79	79	68	68	68	63		
1	101	97	94	90	95	92	88	85	81	78	76	71	69	67	61	60	59	55		
2	93	86	80	75	87	81	76	71	72	68	64	63	60	57	55	53	51	47		
3	85	76	69	63	80	72	66	60	64	59	55	56	53	49	49	46	44	41		
4	78	68	60	54	73	64	57	52	57	52	47	51	46	43	45	41	39	35		
5	72	61	53	47	68	58	50	45	52	46	41	46	41	38	40	37	34	31		
6	67	55	47	41	63	52	45	40	47	41	36	42	37	33	37	33	30	28		
7	62	50	42	37	58	47	40	35	43	37	32	38	33	30	34	30	27	25		
8	58	46	38	33	54	43	36	31	39	33	29	35	30	27	31	27	25	22		
9	54	42	34	29	51	40	33	28	36	30	26	32	28	24	29	25	22	20		
10	50	38	31	27	48	37	30	26	33	28	24	30	25	22	27	23	20	19		

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

	0°	45°	90°
0°	24456	24456	24456
5°	24292	24480	24713
10°	24337	24620	24928
15°	24331	24789	25078
20°	24340	24761	24588
25°	24209	24235	22848
30°	24045	22835	20655
35°	23856	21013	18652
40°	23381	19155	16480
45°	22464	17228	14394
50°	20909	15400	12321
55°	19128	13605	9990
60°	17144	11832	8619
65°	14991	10197	7660
70°	12260	9059	6944
75°	9538	7829	6388
80°	7113	6704	5635
85°	4817	5076	3205

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 22464 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.2	2.7
10°-20°	417.9	7.8
20°-30°	615.0	11.5
30°-40°	672.4	12.6
40°-50°	603.2	11.3
50°-60°	450.0	8.4
60°-70°	284.4	5.3
70°-80°	140.9	2.6
80°-90°	33.4	0.6
90°-100°	126.1	2.4
100°-110°	399.9	7.5
110°-120°	392.1	7.4
120°-130°	319.0	6.0
130°-140°	260.1	4.9
140°-150°	202.8	3.8
150°-160°	146.1	2.7
160°-170°	89.3	1.7
170°-180°	30.1	0.6
0°-30°	1177.1	22.1
0°-40°	1849.5	34.7
0°-60°	2902.7	54.5
0°-90°	3361.3	63.1
90°-120°	918.0	17.2
90°-150°	1700.0	31.9
90°-180°	1966.0	36.9
0°-180°	5326.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1515	1515	1515	1515	1515	
5°	1499	1523	1510	1512	1525	143
15°	1456	1484	1483	1493	1500	411
25°	1359	1388	1360	1304	1282	626
35°	1210	1198	1066	973	946	755
45°	984	905	754	660	630	754
55°	680	615	483	379	355	607
65°	392	360	267	215	200	389
75°	153	164	126	105	102	168
85°	26	33	27	19	17	33
90°	0	1	3	3	3	2
95°	17	51	229	85	55	20
105°	70	98	394	751	720	73
115°	124	148	318	662	778	123
125°	172	193	314	519	611	153
135°	208	228	312	446	503	161
145°	243	261	312	385	419	152
155°	277	286	312	344	357	128
165°	302	304	314	326	328	85
175°	316	315	316	318	316	30
180°	316	316	316	316	316	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1514.7	1514.7	1514.7	1514.7	1514.7
2.5°	1504.3	1523.5	1511.3	1512.5	1515.9
5°	1498.8	1522.8	1510.4	1512.1	1524.8
7.5°	1491.3	1515.6	1506.3	1511.5	1523.9
10°	1484.4	1509.8	1501.7	1509.2	1520.5
12.5°	1475.2	1501.7	1496.0	1504.6	1515.9
15°	1455.6	1483.8	1483.0	1493.2	1500.3
17.5°	1432.8	1461.0	1459.6	1462.3	1465.7
20°	1416.6	1444.8	1441.1	1431.0	1431.0
22.5°	1393.5	1424.0	1414.6	1387.0	1378.0
25°	1358.9	1388.5	1360.4	1303.6	1282.5
27.5°	1318.5	1342.5	1285.9	1205.3	1176.0
30°	1289.7	1308.0	1224.8	1136.1	1107.9
32.5°	1259.7	1266.7	1162.4	1070.3	1039.8
35°	1210.3	1197.6	1066.1	973.1	946.3
37.5°	1152.0	1114.2	973.5	876.1	846.5
40°	1109.3	1055.7	908.8	811.5	781.9
42.5°	1062.0	994.9	847.7	750.3	719.6
45°	983.8	904.9	754.5	660.0	630.4
47.5°	895.8	817.4	667.3	575.9	550.5
50°	832.4	756.2	613.1	521.5	490.5
52.5°	767.7	699.5	560.0	465.9	423.5
55°	679.5	614.6	483.3	378.9	354.9
57.5°	588.6	532.4	413.7	318.9	299.2
60°	530.9	481.5	366.4	286.6	266.9
62.5°	475.5	431.7	320.3	256.7	240.3
65°	392.4	359.9	266.9	214.6	200.5
67.5°	311.6	293.5	221.9	176.1	166.8
70°	259.7	254.0	191.9	154.2	147.1
72.5°	214.7	216.9	163.0	133.5	128.7
75°	152.9	164.2	125.5	105.2	102.4
77.5°	104.2	121.1	92.9	77.8	75.6
80°	76.5	93.4	72.1	60.6	60.6
82.5°	53.4	66.9	51.4	45.6	45.6
85°	26.0	33.0	27.4	18.7	17.3
87.5°	6.9	10.5	5.2	4.1	4.1
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.6	22.1	70.7	23.5	16.5
95°	16.9	51.0	228.9	84.9	54.7
97.5°	31.5	66.1	387.8	242.3	148.7
100°	41.8	74.9	441.9	402.9	261.8
102.5°	53.0	84.5	432.4	591.7	452.9
105°	69.7	97.9	394.2	750.8	719.6
107.5°	86.4	112.5	357.7	767.4	809.4
110°	97.5	122.8	339.4	748.3	826.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	108.7	132.4	329.1	715.3	814.2
115°	124.4	147.8	318.5	661.6	778.4
117.5°	139.7	161.9	314.3	609.8	727.6
120°	149.3	170.7	313.5	577.9	691.8
122.5°	158.9	179.5	313.5	552.2	658.3
125°	172.2	192.6	313.5	518.7	611.1
127.5°	183.9	203.6	313.5	492.7	571.5
130°	191.1	211.5	313.5	477.4	548.4
132.5°	198.3	218.7	312.7	465.3	529.3
135°	208.0	228.5	311.5	446.2	502.7
137.5°	217.6	239.0	311.3	428.0	478.4
140°	224.0	245.4	310.5	415.1	460.8
142.5°	231.9	252.5	311.3	402.3	444.9
145°	242.9	261.4	311.5	385.0	419.0
147.5°	253.8	269.6	311.7	369.7	397.5
150°	261.8	274.4	312.5	360.8	383.2
152.5°	268.1	279.2	312.5	353.6	372.1
155°	276.7	286.4	312.5	343.7	357.3
157.5°	285.9	292.5	313.5	337.6	347.0
160°	290.6	296.5	313.5	333.6	341.4
162.5°	295.4	299.7	313.5	330.4	335.8
165°	301.6	304.5	313.5	325.5	328.5
167.5°	307.4	308.1	314.5	322.2	324.7
170°	310.5	310.5	314.5	320.5	321.5
172.5°	312.1	312.9	314.5	318.9	319.1
175°	315.5	314.6	315.5	317.5	316.5
177.5°	316.5	315.7	315.7	317.3	315.7
180°	316.5	316.5	316.5	316.5	316.5

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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	19.31	20.25	20.15	21.11	22.18	15.79	16.73	16.64	17.59	18.67
	3H	20.64	21.48	21.49	22.35	23.45	17.00	17.85	17.86	18.72	19.82
	4H	21.01	21.81	21.89	22.68	23.79	17.45	18.25	18.33	19.12	20.24
	6H	21.22	21.95	22.11	22.83	23.96	17.78	18.51	18.66	19.39	20.51
	8H	21.26	21.95	22.15	22.85	23.98	17.85	18.55	18.75	19.45	20.57
	12H	21.25	21.92	22.15	22.81	23.96	17.87	18.53	18.77	19.42	20.57
4H	2H	19.42	20.21	20.30	21.09	22.20	16.49	17.28	17.37	18.16	19.27
	3H	20.97	21.63	21.86	22.54	23.67	17.88	18.54	18.77	19.45	20.57
	4H	21.48	22.08	22.38	22.99	24.14	18.43	19.03	19.33	19.93	21.09
	6H	21.82	22.33	22.74	23.26	24.42	18.84	19.35	19.75	20.28	21.44
	8H	21.90	22.38	22.82	23.30	24.47	18.95	19.43	19.86	20.35	21.52
	12H	21.92	22.35	22.86	23.29	24.47	18.97	19.40	19.91	20.34	21.52
8H	4H	21.53	22.01	22.45	22.93	24.10	18.76	19.24	19.68	20.17	21.33
	6H	21.97	22.36	22.91	23.33	24.50	19.27	19.67	20.22	20.63	21.80
	8H	22.11	22.46	23.07	23.42	24.61	19.43	19.78	20.39	20.74	21.93
	12H	22.18	22.49	23.14	23.44	24.68	19.50	19.81	20.45	20.76	21.99
12H	4H	21.49	21.92	22.43	22.86	24.04	18.78	19.21	19.72	20.16	21.33
	6H	21.96	22.31	22.91	23.27	24.45	19.34	19.69	20.29	20.64	21.83
	8H	22.12	22.43	23.08	23.38	24.62	19.53	19.83	20.48	20.78	22.02