

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: P855158

Luminaire Tested: SQ2-PH1-100U-050D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

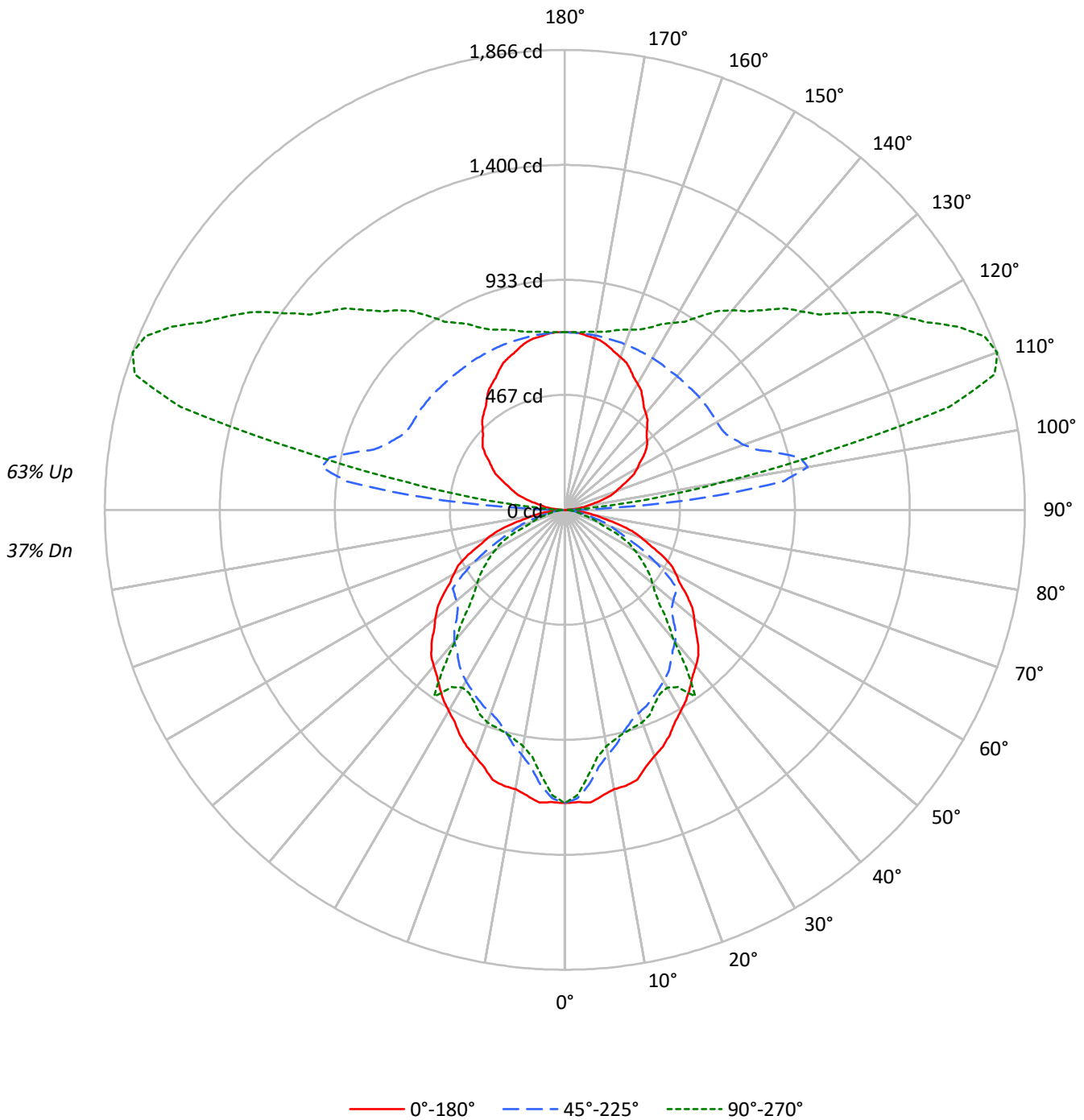
Test Method: LM-79-2019  
Report Number: P855158  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-100U-050D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7117.3 lumens  
Efficiency: N/A  
Efficacy: 141.2 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-Indirect  
  
Input Watts (W): 50.4  
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	59	59	59	44	44	44	37
1	95	91	87	84	86	83	79	77	67	65	63	53	51	50	39	38	38	32
2	87	79	74	69	78	72	67	63	59	55	52	46	44	42	35	33	32	27
3	79	70	63	57	71	64	58	53	52	47	44	41	38	35	31	29	27	23
4	72	62	54	48	65	56	50	45	46	41	37	36	33	30	28	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17
6	61	49	41	36	55	45	38	33	37	32	28	29	26	23	22	20	18	15
7	56	44	37	31	51	41	34	29	33	28	25	27	23	20	21	18	16	13
8	52	40	33	27	47	37	30	26	30	25	22	24	21	18	19	16	14	12
9	49	37	29	24	44	34	27	23	28	23	19	22	19	16	17	15	13	11
10	45	34	26	22	41	31	25	20	26	21	17	21	17	15	16	14	12	10

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

	0°	45°	90°
0°	19204	19204	19204
5°	19313	18157	17553
10°	18869	16531	15956
15°	18954	15549	15644
20°	18278	15069	15770
25°	17943	15000	15403
30°	17553	14958	15528
35°	17420	14789	18201
40°	17435	14693	14431
45°	17443	14134	12428
50°	17199	14413	11655
55°	16980	15640	11181
60°	16811	13705	10488
65°	16516	11110	9123
70°	15597	9456	6519
75°	13905	7130	4941
80°	11362	4630	4630
85°	7132	4187	3149

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17443 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.7	1.5
10°-20°	275.3	3.9
20°-30°	403.6	5.7
30°-40°	488.8	6.9
40°-50°	480.7	6.8
50°-60°	418.5	5.9
60°-70°	290.9	4.1
70°-80°	137.9	1.9
80°-90°	31.7	0.4
90°-100°	301.0	4.2
100°-110°	910.3	12.8
110°-120°	888.6	12.5
120°-130°	726.1	10.2
130°-140°	592.7	8.3
140°-150°	461.4	6.5
150°-160°	332.6	4.7
160°-170°	203.6	2.9
170°-180°	68.8	1.0
0°-30°	783.6	11.0
0°-40°	1272.4	17.9
0°-60°	2171.6	30.5
0°-90°	2632.1	37.0
90°-120°	2099.9	29.5
90°-150°	3880.2	54.5
90°-180°	4485.0	63.0
0°-180°	7117.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1189	1189	1189	1189	1189	
5°	1192	1190	1120	1085	1083	112
15°	1134	1010	930	924	936	316
25°	1007	857	842	868	865	463
35°	884	714	750	815	923	554
45°	764	566	619	641	544	587
55°	603	441	556	400	397	539
65°	432	303	291	239	239	425
75°	223	154	114	82	79	236
85°	38	25	23	18	17	52
90°	0	2	14	8	7	3
95°	37	118	568	210	132	44
105°	158	223	894	1697	1613	166
115°	282	336	723	1496	1757	279
125°	394	437	713	1181	1390	350
135°	472	522	708	1019	1146	365
145°	551	592	708	876	958	345
155°	628	649	713	786	816	289
165°	687	694	716	744	752	194
175°	718	718	720	725	723	68
180°	721	721	721	721	721	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1189.4	1189.4	1189.4	1189.4	1189.4
2.5°	1186.7	1199.1	1171.3	1160.4	1158.6
5°	1191.6	1190.5	1120.3	1085.3	1083.0
7.5°	1169.9	1135.6	1051.8	1013.1	1011.3
10°	1150.9	1099.0	1008.3	973.2	973.2
12.5°	1146.4	1064.3	973.0	947.1	952.4
15°	1133.9	1010.0	930.2	923.8	935.9
17.5°	1092.7	959.3	897.0	911.8	925.9
20°	1063.8	932.2	877.0	904.5	917.8
22.5°	1039.3	905.9	862.6	892.5	899.7
25°	1007.2	856.7	842.0	867.9	864.6
27.5°	968.7	811.6	821.4	837.2	839.2
30°	941.5	784.5	802.3	818.5	832.9
32.5°	915.3	752.9	781.5	819.9	852.8
35°	883.8	714.5	750.3	815.0	923.4
37.5°	850.8	669.3	718.8	773.3	807.8
40°	827.2	636.9	697.1	764.3	684.7
42.5°	801.9	611.6	664.5	751.3	616.8
45°	763.9	565.8	619.0	640.6	544.3
47.5°	719.1	530.3	588.2	534.1	496.6
50°	684.7	506.5	573.8	488.3	464.0
52.5°	651.2	481.9	563.8	450.5	434.1
55°	603.2	440.6	555.6	400.5	397.2
57.5°	552.3	398.5	491.4	357.0	362.8
60°	520.6	371.2	424.4	331.5	324.8
62.5°	487.1	344.8	361.9	298.9	292.2
65°	432.3	302.8	290.8	238.8	238.8
67.5°	372.1	259.3	235.6	195.4	168.8
70°	330.4	230.9	200.3	155.7	138.1
72.5°	286.1	200.6	164.1	127.7	107.3
75°	222.9	154.4	114.3	81.5	79.2
77.5°	161.1	111.1	77.0	60.4	60.7
80°	122.2	84.6	49.8	48.7	49.8
82.5°	86.0	58.2	37.1	38.7	38.9
85°	38.5	25.2	22.6	18.1	17.0
87.5°	8.1	7.7	7.2	6.1	5.9
90°	0.0	2.3	13.6	7.9	6.8
92.5°	12.7	51.2	183.8	60.9	43.9
95°	37.3	118.0	568.0	209.8	132.4
97.5°	72.2	150.3	895.1	592.3	360.7
100°	93.9	170.2	1000.2	966.9	649.3
102.5°	118.4	192.0	978.4	1356.2	1081.1
105°	158.4	222.6	893.8	1697.4	1613.3
107.5°	196.5	257.7	812.3	1731.1	1828.5
110°	221.7	280.4	771.6	1688.7	1865.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	246.1	303.1	747.1	1617.3	1841.2
115°	281.7	335.9	722.9	1495.9	1757.0
117.5°	317.0	368.4	714.3	1382.2	1649.5
120°	340.5	389.2	711.6	1315.9	1572.6
122.5°	362.2	408.3	711.6	1257.6	1494.7
125°	393.7	436.8	712.7	1181.3	1390.5
127.5°	419.3	464.0	711.6	1123.9	1302.2
130°	435.6	482.1	711.6	1090.9	1252.4
132.5°	450.1	497.4	710.7	1060.7	1209.9
135°	471.8	521.6	708.2	1018.8	1146.0
137.5°	496.0	543.3	708.2	974.0	1091.9
140°	511.4	557.8	708.2	944.9	1056.7
142.5°	526.8	571.5	707.3	918.3	1016.0
145°	551.0	591.9	708.2	876.4	958.3
147.5°	575.2	610.0	709.6	841.8	904.7
150°	590.6	622.6	710.5	822.6	875.7
152.5°	605.1	633.6	711.4	806.1	849.4
155°	628.0	648.9	712.7	785.8	815.7
157.5°	647.8	664.9	714.1	770.9	791.7
160°	659.5	674.0	715.0	761.7	777.2
162.5°	671.3	682.2	715.9	753.6	766.4
165°	686.7	694.5	716.1	743.5	752.3
167.5°	699.8	703.9	717.5	735.7	739.4
170°	707.1	709.3	718.4	732.0	733.1
172.5°	711.6	712.9	718.4	728.3	728.6
175°	718.4	718.4	719.5	725.2	722.9
177.5°	721.5	720.6	719.7	722.5	720.6
180°	720.6	720.6	720.6	720.6	720.6



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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	16.25	17.00	17.32	18.07	19.52	14.93	15.68	15.99	16.74	18.19
	3H	18.27	18.94	19.34	20.01	21.48	15.95	16.62	17.02	17.70	19.16
	4H	19.00	19.63	20.08	20.71	22.18	16.16	16.80	17.24	17.87	19.34
	6H	19.48	20.06	20.57	21.14	22.62	16.30	16.88	17.39	17.96	19.45
	8H	19.60	20.15	20.69	21.25	22.72	16.33	16.88	17.42	17.98	19.46
	12H	19.64	20.17	20.74	21.25	22.75	16.32	16.85	17.42	17.94	19.44
4H	2H	16.61	17.25	17.71	18.33	19.80	15.55	16.19	16.64	17.27	18.74
	3H	18.71	19.24	19.81	20.34	21.83	16.72	17.25	17.82	18.35	19.84
	4H	19.52	20.01	20.62	21.10	22.60	16.99	17.48	18.10	18.57	20.08
	6H	20.10	20.52	21.21	21.63	23.13	17.20	17.61	18.31	18.73	20.22
	8H	20.27	20.65	21.38	21.76	23.28	17.25	17.64	18.36	18.75	20.26
	12H	20.33	20.68	21.46	21.80	23.32	17.25	17.60	18.38	18.72	20.24
8H	4H	19.53	19.92	20.64	21.03	22.54	17.20	17.59	18.31	18.70	20.21
	6H	20.18	20.50	21.31	21.65	23.16	17.47	17.79	18.60	18.94	20.45
	8H	20.40	20.68	21.54	21.81	23.34	17.57	17.85	18.71	18.98	20.51
	12H	20.51	20.76	21.65	21.88	23.45	17.61	17.86	18.75	18.98	20.55
12H	4H	19.48	19.83	20.60	20.95	22.47	17.19	17.54	18.32	18.66	20.18
	6H	20.15	20.43	21.29	21.56	23.09	17.50	17.78	18.64	18.91	20.44
	8H	20.38	20.62	21.52	21.75	23.32	17.61	17.85	18.75	18.98	20.55