

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: P855078

Luminaire Tested: SQ2-PW1-0U-050D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

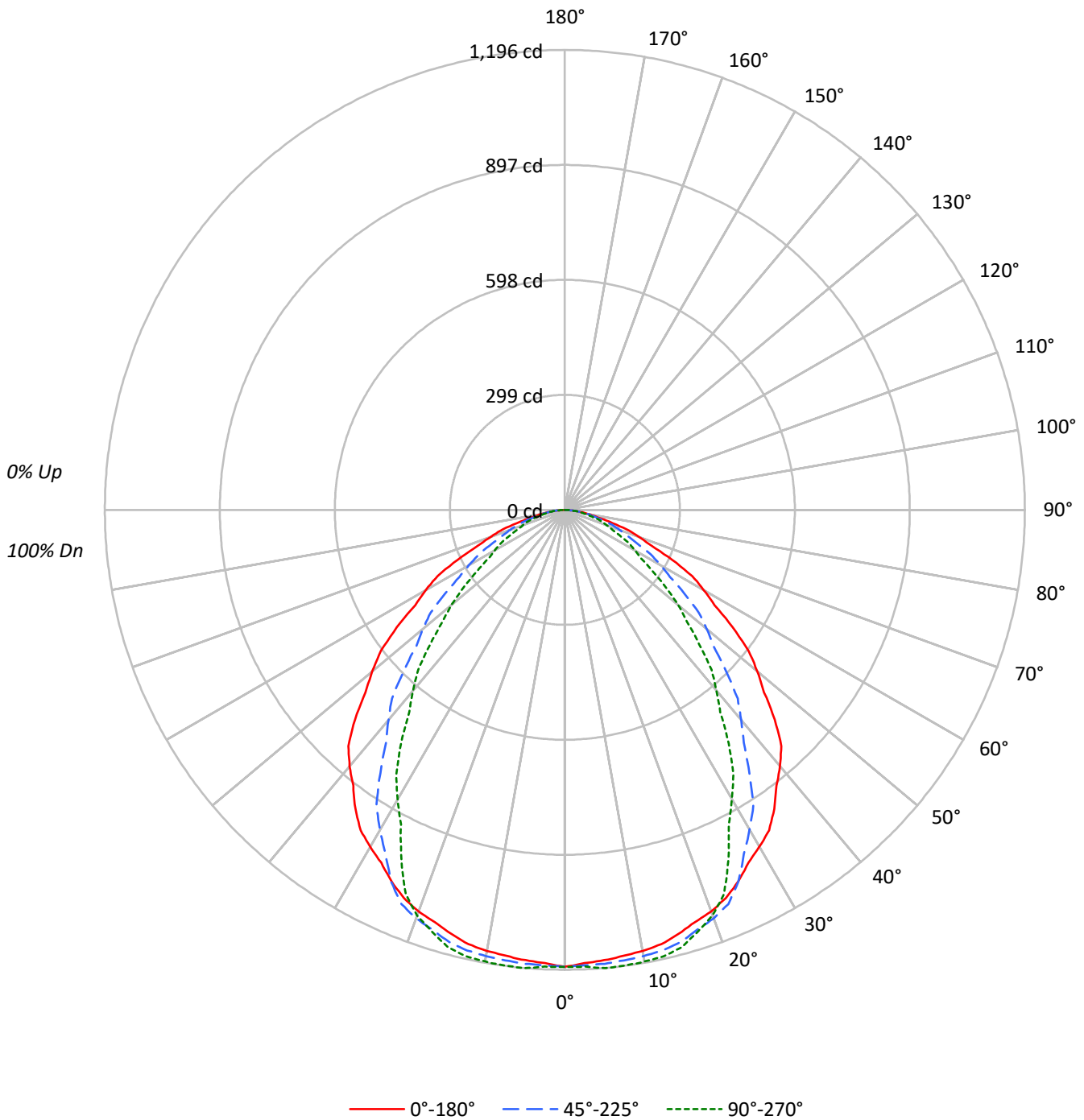
Test Method: LM-79-2019  
Report Number: P855078  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-0U-050D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2636.5 lumens  
Efficiency: N/A  
Efficacy: 148.1 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: Direct  
  
Input Watts (W): 17.8  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87			87	
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	82	79	76	74			74	
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64			64	
4	86	75	67	61	84	74	66	61	71	65	60	69	63	59	67	62	58	56			56	
5	80	68	59	53	78	67	59	53	65	58	52	63	57	52	61	56	51	49			49	
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44			44	
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	46	41	39			39	
8	64	52	44	38	63	51	43	38	50	43	38	48	42	37	47	42	37	35			35	
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32			32	
10	57	44	37	32	55	44	36	31	43	36	31	42	36	31	41	35	31	29			29	

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

	0°	45°	90°
0°	19184	19184	19184
5°	19057	19204	19387
10°	19092	19315	19556
15°	19086	19447	19672
20°	19094	19424	19289
25°	18991	19012	17922
30°	18862	17913	16203
35°	18715	16484	14633
40°	18341	15026	12929
45°	17623	13515	11291
50°	16402	12082	9666
55°	15004	10671	7837
60°	13449	9281	6762
65°	11759	8000	6010
70°	9616	7105	5448
75°	7486	6145	5009
80°	5579	5263	4417
85°	3779	3983	2519

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17623 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.1	4.3
10°-20°	327.8	12.4
20°-30°	482.4	18.3
30°-40°	527.5	20.0
40°-50°	473.2	17.9
50°-60°	353.0	13.4
60°-70°	223.1	8.5
70°-80°	110.5	4.2
80°-90°	25.9	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	923.4	35.0
0°-40°	1450.9	55.0
0°-60°	2277.1	86.4
0°-90°	2636.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2636.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1188	1188	1188	1188	1188	
5°	1176	1195	1185	1186	1196	112
15°	1142	1164	1163	1171	1177	322
25°	1066	1089	1067	1023	1006	491
35°	950	940	836	763	742	592
45°	772	710	592	518	494	592
55°	533	482	379	297	278	476
65°	308	282	209	168	157	305
75°	120	129	98	83	80	132
85°	20	26	22	15	14	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1188.2	1188.2	1188.2	1188.2	1188.2
2.5°	1180.1	1195.2	1185.5	1186.5	1189.2
5°	1175.8	1194.6	1184.9	1186.2	1196.2
7.5°	1169.9	1188.9	1181.7	1185.8	1195.5
10°	1164.5	1184.4	1178.1	1183.9	1192.8
12.5°	1157.2	1178.1	1173.5	1180.3	1189.2
15°	1141.8	1164.0	1163.4	1171.4	1176.9
17.5°	1124.0	1146.1	1145.0	1147.2	1149.8
20°	1111.3	1133.5	1130.5	1122.6	1122.6
22.5°	1093.2	1117.1	1109.7	1088.1	1081.0
25°	1066.0	1089.2	1067.2	1022.7	1006.0
27.5°	1034.3	1053.1	1008.8	945.5	922.5
30°	1011.7	1026.1	960.8	891.3	869.1
32.5°	988.2	993.7	911.9	839.6	815.7
35°	949.5	939.5	836.3	763.4	742.4
37.5°	903.7	874.1	763.6	687.3	664.1
40°	870.2	828.3	712.9	636.6	613.4
42.5°	833.1	780.5	665.0	588.6	564.5
45°	771.8	709.9	591.9	517.7	494.5
47.5°	702.8	641.2	523.5	451.8	431.8
50°	653.0	593.2	481.0	409.1	384.8
52.5°	602.3	548.7	439.3	365.4	332.3
55°	533.0	482.1	379.1	297.2	278.4
57.5°	461.7	417.7	324.6	250.2	234.7
60°	416.5	377.7	287.4	224.9	209.4
62.5°	373.0	338.7	251.2	201.3	188.5
65°	307.8	282.4	209.4	168.4	157.3
67.5°	244.4	230.3	174.0	138.2	130.8
70°	203.7	199.3	150.5	121.0	115.4
72.5°	168.4	170.2	127.9	104.7	100.9
75°	120.0	128.8	98.5	82.6	80.3
77.5°	81.7	94.9	72.9	61.1	59.3
80°	60.0	73.2	56.6	47.5	47.5
82.5°	41.9	52.5	40.3	35.8	35.8
85°	20.4	25.9	21.5	14.7	13.6
87.5°	5.4	8.0	3.6	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

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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	21.23	22.74	21.60	23.05	23.37	17.72	19.22	18.09	19.54	19.85
	3H	22.60	23.95	22.98	24.28	24.64	18.97	20.32	19.35	20.65	21.01
	4H	23.01	24.27	23.41	24.62	24.99	19.45	20.71	19.85	21.06	21.44
	6H	23.24	24.40	23.65	24.77	25.16	19.79	20.96	20.21	21.33	21.72
	8H	23.29	24.40	23.72	24.79	25.19	19.89	20.99	20.31	21.38	21.79
	12H	23.30	24.37	23.74	24.75	25.18	19.92	20.98	20.35	21.36	21.79
4H	2H	21.41	22.67	21.81	23.02	23.40	18.48	19.74	18.88	20.09	20.47
	3H	23.01	24.06	23.42	24.46	24.86	19.92	20.97	20.33	21.37	21.77
	4H	23.54	24.48	23.98	24.90	25.34	20.49	21.43	20.92	21.85	22.28
	6H	23.91	24.72	24.37	25.17	25.63	20.93	21.74	21.39	22.19	22.65
	8H	24.00	24.76	24.46	25.20	25.67	21.04	21.81	21.51	22.25	22.72
	12H	24.04	24.72	24.53	25.20	25.67	21.09	21.77	21.58	22.25	22.72
8H	4H	23.63	24.39	24.09	24.83	25.30	20.86	21.62	21.33	22.07	22.54
	6H	24.09	24.71	24.58	25.21	25.68	21.39	22.02	21.89	22.51	22.99
	8H	24.23	24.80	24.75	25.31	25.79	21.55	22.12	22.07	22.63	23.12
	12H	24.32	24.82	24.84	25.32	25.88	21.64	22.14	22.15	22.63	23.20
12H	4H	23.61	24.29	24.10	24.77	25.24	20.91	21.59	21.39	22.06	22.54
	6H	24.08	24.64	24.59	25.15	25.64	21.46	22.02	21.97	22.53	23.02
	8H	24.27	24.76	24.78	25.26	25.82	21.67	22.17	22.18	22.66	23.22