

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: P854879

Luminaire Tested: SQ2-PW1-050U-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854879
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-050D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

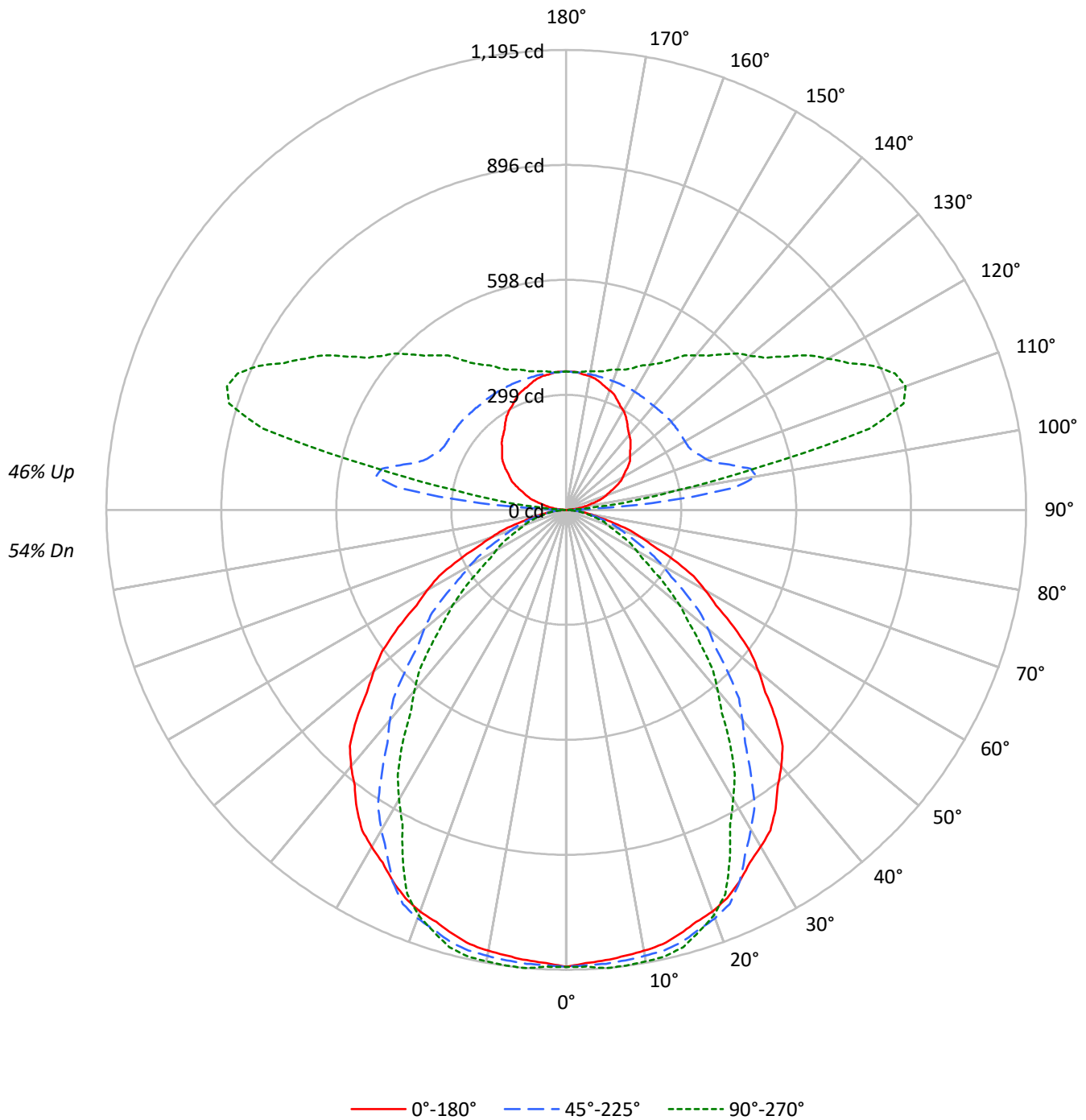
Lumens per Lamp: N/A
Luminaire Lumens: 4867.2 lumens
Efficiency: N/A
Efficacy: 149.3 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 32.6
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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	95	92	88	92	89	85	83	76	74	72	65	63	61	54	53	52	47
2	91	84	78	73	84	78	73	69	67	64	60	57	55	52	48	46	45	40
3	83	74	67	62	77	69	63	58	60	55	51	51	48	45	43	41	39	35
4	77	66	59	53	71	62	55	50	54	48	44	46	42	39	39	36	34	30
5	71	59	51	46	65	55	48	43	48	43	39	42	37	34	35	32	30	27
6	65	53	45	40	60	50	43	38	44	38	34	38	34	30	32	29	27	24
7	60	48	41	35	56	45	38	33	40	34	30	35	30	27	30	26	24	21
8	56	44	36	31	52	41	35	30	36	31	27	32	27	24	27	24	21	19
9	52	40	33	28	49	38	31	27	34	28	24	29	25	22	25	22	20	17
10	49	37	30	25	46	35	29	24	31	26	22	27	23	20	24	20	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19168	19168	19168
5°	19039	19186	19370
10°	19074	19297	19538
15°	19069	19428	19656
20°	19077	19407	19271
25°	18975	18994	17906
30°	18845	17896	16188
35°	18697	16468	14619
40°	18326	15013	12916
45°	17607	13502	11282
50°	16387	12069	9656
55°	14990	10663	7828
60°	13437	9274	6755
65°	11748	7992	6006
70°	9607	7100	5443
75°	7473	6138	5009
80°	5570	5253	4417
85°	3779	3983	2519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17607 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.0	2.3
10°-20°	327.5	6.7
20°-30°	482.0	9.9
30°-40°	527.0	10.8
40°-50°	472.8	9.7
50°-60°	352.7	7.2
60°-70°	222.9	4.6
70°-80°	110.4	2.3
80°-90°	26.3	0.5
90°-100°	143.2	2.9
100°-110°	454.2	9.3
110°-120°	445.4	9.1
120°-130°	362.4	7.4
130°-140°	295.5	6.1
140°-150°	230.4	4.7
150°-160°	166.0	3.4
160°-170°	101.4	2.1
170°-180°	34.2	0.7
0°-30°	922.6	19.0
0°-40°	1449.6	29.8
0°-60°	2275.0	46.7
0°-90°	2634.6	54.1
90°-120°	1042.7	21.4
90°-150°	1931.0	39.7
90°-180°	2233.0	45.9
0°-180°	4867.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1187	1187	1187	1187	1187	
5°	1175	1194	1184	1185	1195	112
15°	1141	1163	1162	1170	1176	322
25°	1065	1088	1066	1022	1005	490
35°	949	939	836	763	742	592
45°	771	709	591	517	494	591
55°	532	482	379	297	278	476
65°	308	282	209	168	157	305
75°	120	129	98	82	80	132
85°	20	26	22	15	14	26
90°	0	1	3	3	3	2
95°	19	58	260	96	62	22
105°	79	111	448	853	817	83
115°	141	168	362	751	884	139
125°	196	219	356	589	694	174
135°	236	260	354	507	571	182
145°	276	297	354	437	476	173
155°	314	325	355	390	406	145
165°	343	346	356	370	373	97
175°	358	357	358	361	360	34
180°	360	360	360	360	360	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1187.2	1187.2	1187.2	1187.2	1187.2
2.5°	1179.0	1194.1	1184.5	1185.5	1188.1
5°	1174.7	1193.5	1183.8	1185.1	1195.1
7.5°	1168.9	1187.9	1180.6	1184.7	1194.4
10°	1163.4	1183.3	1177.0	1182.9	1191.7
12.5°	1156.2	1177.0	1172.5	1179.3	1188.1
15°	1140.8	1163.0	1162.3	1170.3	1175.9
17.5°	1123.0	1145.1	1144.0	1146.1	1148.7
20°	1110.3	1132.5	1129.5	1121.6	1121.6
22.5°	1092.2	1116.1	1108.7	1087.1	1080.0
25°	1065.1	1088.2	1066.2	1021.8	1005.1
27.5°	1033.4	1052.2	1007.9	944.7	921.7
30°	1010.8	1025.2	959.9	890.5	868.3
32.5°	987.3	992.8	911.1	838.8	815.0
35°	948.6	938.7	835.5	762.7	741.7
37.5°	902.9	873.3	763.0	686.6	663.5
40°	869.5	827.5	712.3	636.0	612.8
42.5°	832.4	779.8	664.4	588.0	564.0
45°	771.1	709.3	591.3	517.3	494.1
47.5°	702.1	640.6	523.0	451.4	431.5
50°	652.4	592.7	480.5	408.7	384.4
52.5°	601.7	548.2	438.9	365.1	332.0
55°	532.5	481.7	378.8	296.9	278.1
57.5°	461.3	417.3	324.3	250.0	234.5
60°	416.1	377.4	287.2	224.7	209.2
62.5°	372.7	338.4	251.0	201.1	188.4
65°	307.5	282.1	209.2	168.2	157.2
67.5°	244.2	230.1	173.9	138.1	130.7
70°	203.5	199.1	150.4	120.9	115.3
72.5°	168.2	170.0	127.8	104.6	100.9
75°	119.8	128.7	98.4	82.5	80.3
77.5°	81.6	94.9	72.8	61.1	59.2
80°	59.9	73.2	56.5	47.5	47.5
82.5°	41.8	52.5	40.3	35.7	35.7
85°	20.4	25.9	21.5	14.7	13.6
87.5°	5.4	8.3	4.3	3.4	3.4
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.3	25.1	80.3	26.7	18.8
95°	19.2	57.9	260.0	96.4	62.2
97.5°	35.7	75.1	440.5	275.2	168.9
100°	47.5	85.0	502.0	457.6	297.4
102.5°	60.2	96.0	491.2	672.1	514.4
105°	79.1	111.1	447.7	852.7	817.3
107.5°	98.1	127.8	406.4	871.6	919.3
110°	110.8	139.5	385.5	849.9	938.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	123.5	150.4	373.8	812.5	924.8
115°	141.3	167.9	361.8	751.4	884.0
117.5°	158.7	184.0	357.1	692.6	826.4
120°	169.6	193.9	356.2	656.3	785.7
122.5°	180.5	203.9	356.2	627.3	747.7
125°	195.6	218.8	356.2	589.2	694.1
127.5°	208.9	231.2	356.2	559.7	649.1
130°	217.1	240.3	356.2	542.3	622.9
132.5°	225.2	248.4	355.2	528.5	601.3
135°	236.3	259.5	353.9	506.8	571.0
137.5°	247.2	271.5	353.7	486.1	543.4
140°	254.4	278.7	352.8	471.5	523.5
142.5°	263.4	286.8	353.7	456.9	505.4
145°	275.9	296.9	353.9	437.2	476.0
147.5°	288.3	306.2	354.1	419.9	451.6
150°	297.4	311.7	355.0	409.9	435.3
152.5°	304.6	317.1	355.0	401.6	422.6
155°	314.3	325.4	355.0	390.4	405.9
157.5°	324.7	332.2	356.2	383.5	394.1
160°	330.1	336.7	356.2	378.9	387.8
162.5°	335.6	340.4	356.2	375.3	381.5
165°	342.6	345.9	356.2	369.7	373.1
167.5°	349.1	350.0	357.3	365.9	368.8
170°	352.8	352.8	357.3	364.1	365.2
172.5°	354.6	355.5	357.3	362.3	362.5
175°	358.4	357.3	358.4	360.6	359.5
177.5°	359.5	358.6	358.6	360.3	358.6
180°	359.5	359.5	359.5	359.5	359.5



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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	17.69	18.55	18.62	19.49	20.71	14.18	15.04	15.11	15.98	17.19
	3H	19.02	19.78	19.96	20.73	21.97	15.39	16.15	16.33	17.10	18.34
	4H	19.39	20.11	20.35	21.07	22.32	15.83	16.56	16.79	17.51	18.76
	6H	19.59	20.26	20.56	21.22	22.48	16.15	16.82	17.12	17.78	19.04
	8H	19.63	20.26	20.60	21.24	22.49	16.22	16.86	17.20	17.83	19.09
	12H	19.62	20.22	20.60	21.19	22.48	16.24	16.84	17.21	17.81	19.09
4H	2H	17.80	18.52	18.76	19.48	20.72	14.86	15.59	15.82	16.54	17.79
	3H	19.34	19.94	20.31	20.93	22.19	16.25	16.85	17.22	17.84	19.10
	4H	19.85	20.40	20.83	21.38	22.66	16.80	17.34	17.78	18.32	19.61
	6H	20.18	20.65	21.17	21.65	22.94	17.20	17.67	18.19	18.67	19.96
	8H	20.26	20.70	21.25	21.69	22.99	17.31	17.75	18.30	18.74	20.04
	12H	20.28	20.67	21.29	21.68	22.99	17.33	17.72	18.34	18.74	20.04
8H	4H	19.89	20.33	20.88	21.32	22.62	17.12	17.56	18.12	18.56	19.86
	6H	20.32	20.69	21.34	21.72	23.02	17.63	17.99	18.65	19.03	20.32
	8H	20.47	20.79	21.50	21.81	23.13	17.79	18.11	18.82	19.14	20.45
	12H	20.54	20.82	21.56	21.83	23.20	17.85	18.13	18.88	19.15	20.51
12H	4H	19.85	20.24	20.86	21.25	22.56	17.14	17.53	18.15	18.55	19.85
	6H	20.32	20.63	21.34	21.66	22.97	17.69	18.01	18.72	19.04	20.35
	8H	20.48	20.76	21.51	21.78	23.14	17.88	18.16	18.91	19.18	20.54