

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: P854447

Luminaire Tested: SQ2-WBN-075U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854447
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-075U-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

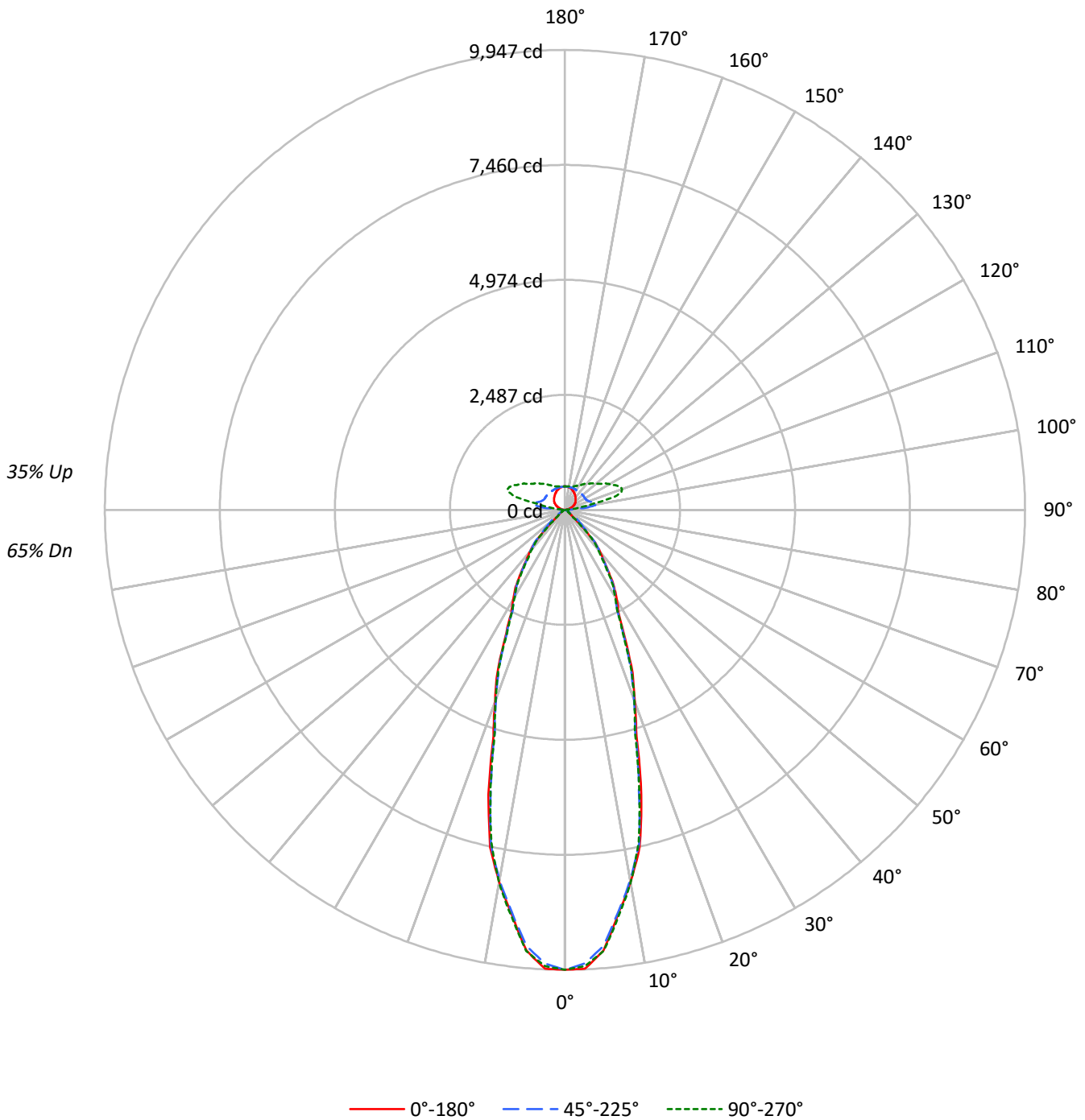
Lumens per Lamp: N/A
Luminaire Lumens: 8899.7 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 73
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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65
1	104	101	98	95	98	95	93	90	85	83	81	75	74	73	66	65	65	61
2	98	92	87	83	92	87	83	80	78	75	73	70	68	66	63	61	60	56
3	92	84	79	74	87	80	75	71	73	69	66	66	63	61	59	57	55	52
4	86	78	72	67	81	74	69	65	68	63	60	61	58	56	56	53	52	49
5	81	72	65	61	77	69	63	59	63	59	55	58	54	52	53	50	48	46
6	76	67	60	56	72	64	58	54	59	54	51	54	51	48	50	47	45	43
7	72	62	56	51	69	60	54	50	55	51	47	51	47	45	47	44	42	40
8	68	58	52	48	65	56	50	46	52	47	44	48	45	42	45	42	40	38
9	65	55	48	44	62	53	47	43	49	45	41	46	42	39	43	40	38	36
10	61	51	45	41	59	50	44	41	47	42	39	44	40	37	41	38	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	160596	160596	160596
5°	155062	153518	155234
10°	134030	133392	134348
15°	106653	103291	103704
20°	75766	74764	75311
25°	54508	53440	53062
30°	41648	40529	40431
35°	32694	32136	31302
40°	24770	24434	23244
45°	13860	16559	12369
50°	4875	10193	4300
55°	2981	5562	2832
60°	2280	2906	2109
65°	2090	2159	1956
70°	1997	1997	1832
75°	1871	1871	1759
80°	1636	1636	1636
85°	1630	1315	1315

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 16559 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	863.4	9.7
10°-20°	1716.0	19.3
20°-30°	1421.0	16.0
30°-40°	1022.3	11.5
40°-50°	520.8	5.9
50°-60°	135.6	1.5
60°-70°	56.2	0.6
70°-80°	31.2	0.4
80°-90°	9.8	0.1
90°-100°	190.8	2.1
100°-110°	632.4	7.1
110°-120°	627.7	7.1
120°-130°	511.3	5.7
130°-140°	415.5	4.7
140°-150°	322.7	3.6
150°-160°	232.5	2.6
160°-170°	142.4	1.6
170°-180°	48.1	0.5
0°-30°	4000.4	44.9
0°-40°	5022.7	56.4
0°-60°	5679.1	63.8
0°-90°	5776.3	64.9
90°-120°	1450.9	16.3
90°-150°	2700.4	30.3
90°-180°	3123.0	35.1
0°-180°	8899.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9947	9947	9947	9947	9947	
5°	9567	9554	9472	9609	9578	863
15°	6380	6308	6179	6223	6204	1732
25°	3060	3054	3000	2973	2978	1439
35°	1659	1669	1630	1604	1588	1041
45°	607	698	725	675	542	485
55°	106	123	198	114	101	104
65°	55	56	56	53	51	55
75°	30	30	30	28	28	32
85°	9	9	7	9	7	9
90°	0	1	3	4	4	2
95°	27	80	346	123	82	31
105°	111	158	633	1194	1116	117
115°	197	236	510	1061	1241	195
125°	276	306	500	834	983	245
135°	330	364	496	715	807	255
145°	383	412	495	616	674	240
155°	438	453	498	550	570	202
165°	480	486	500	520	525	135
175°	502	502	503	506	506	48
180°	504	504	504	504	504	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9946.6	9946.6	9946.6	9946.6	9946.6
2.5°	9931.1	9914.5	9819.6	9898.2	9878.9
5°	9567.3	9553.5	9472.0	9608.9	9577.9
7.5°	8815.9	8827.7	8779.9	8900.9	8867.8
10°	8175.1	8206.1	8136.2	8311.8	8194.5
12.5°	7467.8	7447.8	7399.4	7426.5	7361.6
15°	6380.5	6308.1	6179.4	6223.1	6204.1
17.5°	5139.4	5167.3	5055.7	5051.0	5029.6
20°	4409.6	4418.2	4351.3	4386.5	4383.1
22.5°	3822.3	3824.0	3738.7	3790.2	3759.1
25°	3059.7	3054.5	2999.7	2973.3	2978.5
27.5°	2509.2	2487.8	2446.3	2463.7	2450.9
30°	2233.9	2216.6	2173.9	2184.1	2168.6
32.5°	1986.9	1987.5	1943.8	1938.6	1927.2
35°	1658.7	1669.0	1630.4	1603.6	1588.1
37.5°	1365.7	1375.4	1342.8	1303.7	1290.6
40°	1175.2	1182.1	1159.3	1113.2	1102.8
42.5°	967.7	996.7	974.4	930.8	908.0
45°	607.0	698.4	725.2	674.6	541.7
47.5°	307.0	433.7	517.4	382.1	251.6
50°	194.1	282.1	405.8	229.8	171.2
52.5°	148.9	194.1	324.0	169.7	137.3
55°	105.9	123.1	197.6	114.4	100.6
57.5°	81.9	91.5	118.2	86.6	78.0
60°	70.6	77.5	90.0	73.9	65.3
62.5°	63.5	67.7	73.1	62.7	59.6
65°	54.7	56.4	56.5	52.9	51.2
67.5°	46.6	48.3	48.0	46.2	44.5
70°	42.3	44.1	42.3	40.5	38.8
72.5°	36.7	38.4	36.7	36.3	34.6
75°	30.0	30.0	30.0	28.2	28.2
77.5°	23.3	23.6	21.9	21.8	20.5
80°	17.6	19.4	17.6	17.6	17.6
82.5°	14.8	15.2	13.4	13.4	13.4
85°	8.8	8.8	7.1	8.8	7.1
87.5°	2.8	3.0	3.4	3.7	3.7
90°	0.0	1.0	3.1	4.2	4.2
92.5°	8.4	32.3	95.0	30.8	25.9
95°	27.2	80.3	345.7	123.4	82.5
97.5°	49.9	105.5	603.5	352.0	222.5
100°	65.8	118.9	698.7	600.1	397.9
102.5°	83.3	134.8	692.9	917.1	692.9
105°	110.7	157.7	632.9	1194.1	1116.5
107.5°	138.7	180.6	575.5	1222.3	1281.3
110°	154.6	196.4	546.2	1194.4	1313.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	171.3	212.3	528.7	1145.0	1297.2
115°	197.4	236.2	509.7	1061.1	1240.8
117.5°	223.3	257.8	502.8	980.8	1169.4
120°	239.2	272.9	500.3	930.6	1113.4
122.5°	253.4	286.3	500.3	889.3	1058.2
125°	275.7	306.4	500.3	833.7	982.8
127.5°	294.1	324.1	499.0	791.7	919.1
130°	305.0	336.6	498.2	767.1	881.5
132.5°	315.0	347.5	497.4	746.8	849.8
135°	330.0	363.7	496.1	715.4	807.4
137.5°	346.3	378.8	494.9	685.1	766.2
140°	357.2	388.9	494.0	664.9	739.5
142.5°	367.2	398.1	494.9	644.7	711.1
145°	383.3	411.9	495.1	615.5	673.7
147.5°	400.6	424.5	495.3	590.7	634.0
150°	411.5	433.0	496.1	576.3	613.1
152.5°	421.5	442.2	496.9	564.5	593.9
155°	437.6	452.9	498.2	549.8	570.3
157.5°	453.3	465.1	499.5	539.5	554.0
160°	461.6	471.9	500.3	531.9	543.1
162.5°	470.0	477.8	500.3	526.8	535.6
165°	480.4	485.5	500.3	520.2	525.4
167.5°	490.1	492.7	501.3	514.3	517.0
170°	495.1	496.1	501.3	511.8	512.8
172.5°	498.4	499.4	502.2	509.3	509.5
175°	502.4	502.4	503.4	506.5	505.5
177.5°	504.5	504.5	503.6	505.3	503.6
180°	504.5	504.5	504.5	504.5	504.5

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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	5.91	6.66	6.77	7.51	8.57	5.52	6.28	6.39	7.13	8.19
	3H	6.96	7.63	7.83	8.49	9.57	6.52	7.19	7.40	8.05	9.14
	4H	7.38	8.01	8.27	8.88	9.98	6.95	7.57	7.84	8.44	9.54
	6H	7.70	8.27	8.60	9.15	10.25	7.28	7.85	8.18	8.73	9.83
	8H	7.80	8.34	8.70	9.23	10.34	7.38	7.92	8.29	8.81	9.92
	12H	7.86	8.38	8.77	9.26	10.39	7.43	7.95	8.34	8.83	9.96
4H	2H	6.13	6.76	7.03	7.63	8.72	5.80	6.43	6.70	7.30	8.39
	3H	7.43	7.94	8.33	8.84	9.95	7.05	7.56	7.95	8.46	9.57
	4H	7.99	8.46	8.90	9.35	10.49	7.60	8.07	8.51	8.97	10.10
	6H	8.44	8.84	9.37	9.76	10.90	8.06	8.46	8.99	9.38	10.52
	8H	8.60	8.97	9.52	9.88	11.03	8.21	8.59	9.14	9.50	10.65
	12H	8.70	9.04	9.65	9.97	11.12	8.30	8.63	9.24	9.56	10.72
8H	4H	8.13	8.51	9.06	9.42	10.57	7.78	8.16	8.71	9.07	10.22
	6H	8.72	9.02	9.67	9.98	11.13	8.37	8.67	9.32	9.63	10.77
	8H	8.96	9.23	9.92	10.17	11.34	8.61	8.87	9.57	9.82	10.99
	12H	9.15	9.38	10.11	10.32	11.54	8.78	9.01	9.74	9.95	11.17
12H	4H	8.11	8.44	9.05	9.37	10.53	7.77	8.10	8.71	9.03	10.18
	6H	8.74	9.00	9.70	9.95	11.12	8.40	8.66	9.36	9.61	10.78
	8H	9.01	9.24	9.97	10.18	11.40	8.67	8.90	9.63	9.84	11.06