

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: P853669

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853669
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-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: -

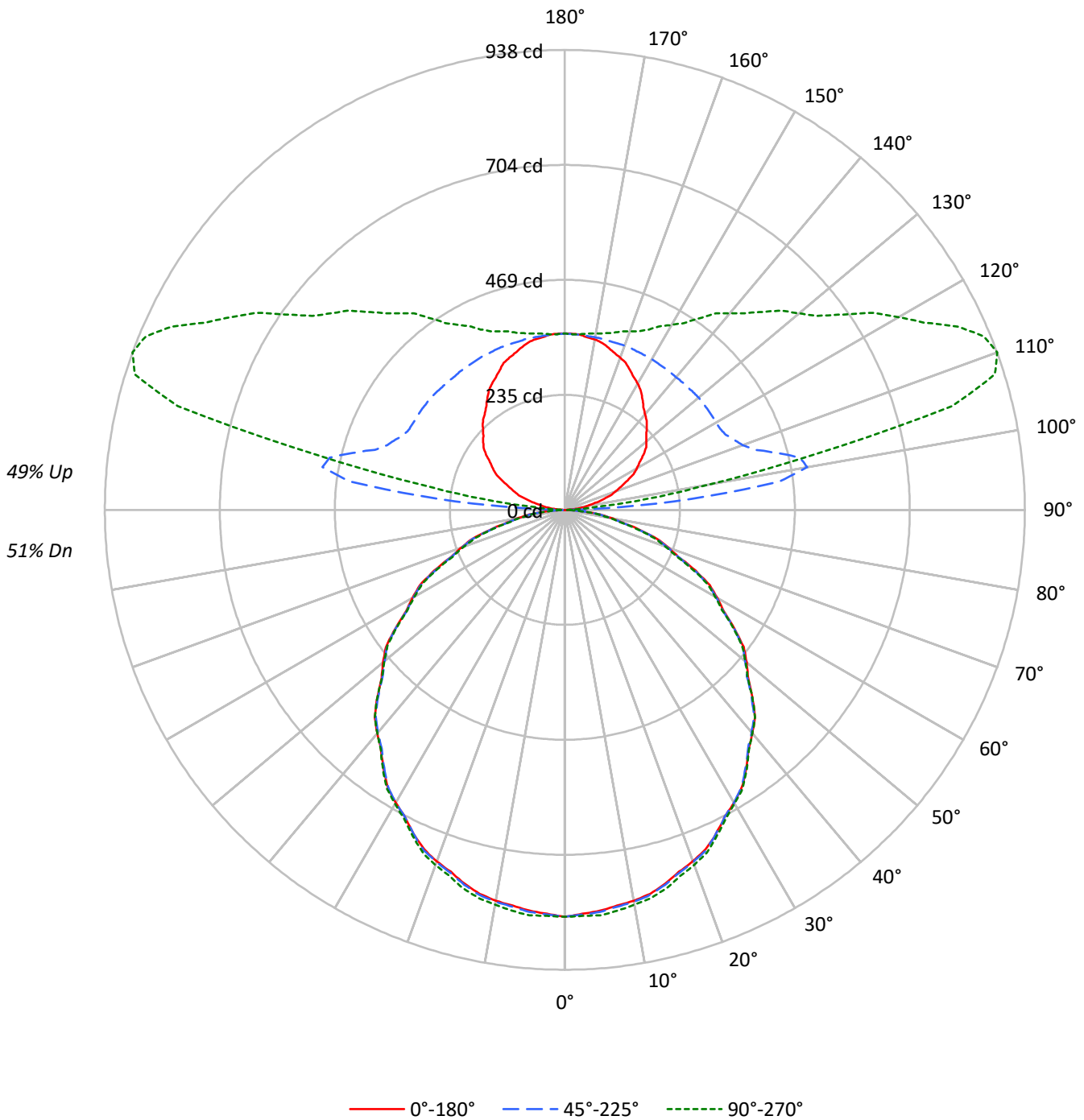
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4562.7 lumens
Efficiency: N/A
Efficacy: 140.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
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	50	30	10
RCR																				
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51		
1	98	93	90	86	90	86	83	80	73	71	69	61	60	58	50	49	48	43		
2	89	81	75	70	82	75	70	65	64	60	57	54	51	48	44	42	40	36		
3	81	71	64	58	75	66	60	54	56	51	47	47	44	41	39	36	34	30		
4	74	63	55	49	68	59	51	46	50	45	40	42	38	35	35	32	29	25		
5	68	56	48	42	62	52	45	39	45	39	35	38	33	30	31	28	25	22		
6	63	50	42	36	58	47	39	34	40	34	30	34	29	26	28	25	22	19		
7	58	45	37	32	53	42	35	30	36	31	26	31	26	23	26	22	20	17		
8	54	41	33	28	49	38	31	26	33	27	23	28	24	20	24	20	18	15		
9	50	38	30	25	46	35	28	24	30	25	21	26	22	18	22	18	16	14		
10	47	34	27	22	43	32	26	21	28	23	19	24	20	17	20	17	14	12		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13399	13399	13399
5°	13303	13340	13451
10°	13272	13309	13403
15°	13192	13230	13362
20°	13113	13132	13249
25°	12992	12992	13073
30°	12858	12858	12901
35°	12703	12658	12747
40°	12534	12488	12534
45°	12339	12289	12339
50°	12155	12042	12069
55°	11871	11840	11775
60°	11573	11502	11428
65°	11232	11102	10972
70°	10570	10513	10301
75°	9944	9732	9451
80°	8833	8619	8303
85°	7114	6484	6076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 12415 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.4	1.7
10°-20°	224.2	4.9
20°-30°	337.2	7.4
30°-40°	403.5	8.8
40°-50°	416.3	9.1
50°-60°	375.6	8.2
60°-70°	286.6	6.3
70°-80°	164.8	3.6
80°-90°	43.4	1.0
90°-100°	143.2	3.1
100°-110°	454.2	10.0
110°-120°	445.4	9.8
120°-130°	362.4	7.9
130°-140°	295.5	6.5
140°-150°	230.4	5.0
150°-160°	166.0	3.6
160°-170°	101.4	2.2
170°-180°	34.2	0.8
0°-30°	639.8	14.0
0°-40°	1043.4	22.9
0°-60°	1835.3	40.2
0°-90°	2330.1	51.1
90°-120°	1042.7	22.9
90°-150°	1931.0	42.3
90°-180°	2233.0	48.9
0°-180°	4562.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	821	832	823	824	830	78
15°	789	799	792	795	799	223
25°	729	737	729	730	734	336
35°	644	649	642	644	647	403
45°	540	544	538	539	540	417
55°	422	424	421	418	418	377
65°	294	293	291	288	287	289
75°	159	158	156	153	152	168
85°	38	36	35	32	33	45
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°	829.9	829.9	829.9	829.9	829.9
2.5°	824.5	834.2	826.3	828.1	829.0
5°	820.8	831.9	823.1	824.4	829.9
7.5°	814.1	826.0	816.3	818.5	824.7
10°	809.5	820.6	811.8	813.0	817.5
12.5°	802.3	813.4	804.6	806.7	811.1
15°	789.2	799.1	791.5	795.0	799.4
17.5°	774.0	784.7	776.1	779.1	782.9
20°	763.2	772.0	764.3	765.6	771.1
22.5°	749.6	758.4	751.7	752.0	756.6
25°	729.3	737.0	729.3	730.5	733.8
27.5°	706.0	712.6	706.0	707.2	710.0
30°	689.7	696.4	689.7	690.8	692.0
32.5°	671.6	677.4	670.7	671.9	674.8
35°	644.5	648.9	642.2	644.5	646.7
37.5°	615.5	618.8	613.3	614.4	616.4
40°	594.7	598.0	592.5	593.6	594.7
42.5°	573.9	576.4	570.7	571.9	573.9
45°	540.4	543.7	538.2	539.3	540.4
47.5°	506.5	508.6	503.8	502.9	504.9
50°	483.9	485.0	479.4	479.4	480.5
52.5°	459.5	460.6	456.8	455.0	456.1
55°	421.7	424.0	420.6	418.3	418.3
57.5°	383.7	385.8	381.5	380.3	380.1
60°	358.4	359.5	356.2	355.0	353.9
62.5°	333.1	333.3	329.9	328.8	327.7
65°	294.0	292.8	290.6	288.3	287.2
67.5°	250.1	251.2	249.0	245.3	245.3
70°	223.9	225.0	222.7	218.2	218.2
72.5°	198.5	197.9	196.5	192.9	191.1
75°	159.4	158.3	156.0	152.6	151.5
77.5°	120.3	119.2	118.0	113.7	114.6
80°	95.0	93.8	92.7	89.3	89.3
82.5°	72.4	70.3	69.2	65.8	65.8
85°	38.4	36.2	35.0	31.7	32.8
87.5°	10.9	10.2	9.7	7.9	7.9
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	17.08	17.97	18.03	18.93	20.18	17.00	17.89	17.95	18.85	20.10
	3H	18.87	19.66	19.82	20.63	21.91	18.74	19.54	19.70	20.51	21.79
	4H	19.52	20.27	20.50	21.25	22.54	19.37	20.12	20.34	21.10	22.38
	6H	19.99	20.69	20.98	21.67	22.97	19.81	20.50	20.79	21.48	22.78
	8H	20.13	20.79	21.12	21.79	23.09	19.93	20.59	20.92	21.59	22.88
	12H	20.21	20.83	21.20	21.83	23.15	19.99	20.61	20.98	21.60	22.93
4H	2H	17.64	18.39	18.61	19.36	20.65	17.57	18.32	18.55	19.30	20.59
	3H	19.63	20.25	20.61	21.26	22.56	19.52	20.14	20.50	21.15	22.45
	4H	20.42	20.99	21.41	21.99	23.31	20.27	20.85	21.27	21.85	23.17
	6H	21.01	21.50	22.01	22.52	23.85	20.83	21.32	21.83	22.34	23.66
	8H	21.20	21.66	22.20	22.67	24.01	20.99	21.45	22.00	22.47	23.81
	12H	21.30	21.72	22.33	22.75	24.09	21.07	21.49	22.10	22.52	23.86
8H	4H	20.67	21.13	21.67	22.14	23.48	20.54	21.00	21.55	22.02	23.35
	6H	21.38	21.77	22.42	22.82	24.16	21.22	21.60	22.25	22.66	23.99
	8H	21.65	21.99	22.69	23.03	24.38	21.46	21.79	22.50	22.84	24.19
	12H	21.82	22.12	22.86	23.15	24.55	21.59	21.89	22.64	22.93	24.32
12H	4H	20.66	21.08	21.69	22.11	23.45	20.54	20.96	21.57	21.99	23.33
	6H	21.43	21.76	22.47	22.81	24.16	21.27	21.60	22.31	22.65	24.00
	8H	21.72	22.02	22.77	23.06	24.45	21.53	21.83	22.58	22.87	24.26