

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: P853872

Luminaire Tested: SQ2-FB-100U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853872
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-100U-050D-930-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

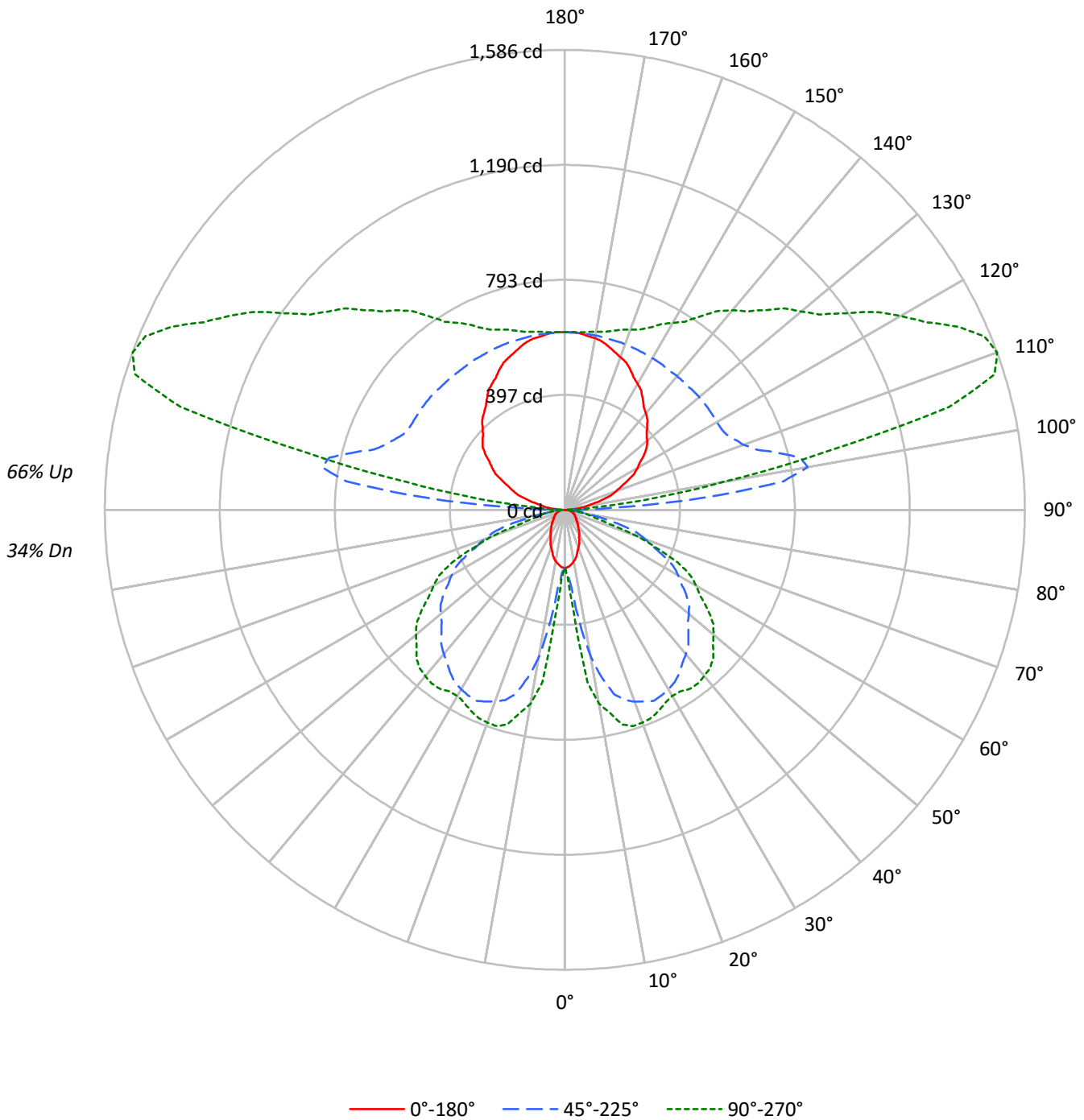
Lumens per Lamp: N/A
Luminaire Lumens: 5789.9 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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	103	103	103	103	93	93	93	93	75	75	75	57	57	57	42	42	42	34
1	94	90	86	83	85	81	78	75	65	63	61	50	49	47	37	36	35	29
2	85	78	72	67	77	71	65	61	57	53	50	44	41	39	32	30	29	23
3	78	68	61	55	70	62	56	51	50	45	41	38	35	33	28	26	24	19
4	71	60	52	46	64	54	48	42	44	39	35	34	30	28	25	22	21	16
5	65	53	45	39	58	48	41	36	39	34	30	30	26	24	22	20	18	14
6	59	47	39	34	53	43	36	31	35	29	26	27	23	20	20	17	15	12
7	55	43	35	29	49	39	32	27	31	26	22	24	21	18	18	15	13	10
8	51	38	31	25	45	35	28	23	28	23	19	22	18	16	16	14	12	9
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10	8
10	44	32	25	20	39	29	23	18	24	19	15	18	15	12	14	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3231	3231	3231
5°	3149	4365	5721
10°	2949	8452	11132
15°	2669	10997	12814
20°	2363	12096	13419
25°	2090	12937	13639
30°	1848	13323	13807
35°	1650	13555	14844
40°	1501	13683	15772
45°	1384	13748	16516
50°	1304	14011	16814
55°	1272	14376	16949
60°	1305	14567	16866
65°	1360	14369	16390
70°	1407	13893	12397
75°	1560	12483	6837
80°	1609	6434	6351
85°	1612	4446	2668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 17102 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.5	0.6
10°-20°	153.0	2.6
20°-30°	269.2	4.6
30°-40°	348.4	6.0
40°-50°	384.3	6.6
50°-60°	358.8	6.2
60°-70°	277.3	4.8
70°-80°	127.9	2.2
80°-90°	25.5	0.4
90°-100°	255.8	4.4
100°-110°	773.7	13.4
110°-120°	755.2	13.0
120°-130°	617.2	10.7
130°-140°	503.8	8.7
140°-150°	392.2	6.8
150°-160°	282.7	4.9
160°-170°	173.1	3.0
170°-180°	58.4	1.0
0°-30°	455.7	7.9
0°-40°	804.1	13.9
0°-60°	1547.2	26.7
0°-90°	1977.9	34.2
90°-120°	1784.7	30.8
90°-150°	3297.8	57.0
90°-180°	3812.0	65.8
0°-180°	5789.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	200	200	200	200	200	
5°	194	222	269	328	353	18
15°	160	315	658	736	767	45
25°	117	423	726	758	766	54
35°	84	408	688	712	753	53
45°	61	313	602	691	723	47
55°	45	186	511	587	602	41
65°	36	105	376	421	429	35
75°	25	64	200	108	110	26
85°	9	19	24	16	14	9
90°	0	2	12	7	6	2
95°	32	100	483	178	112	38
105°	135	189	760	1443	1371	141
115°	239	286	614	1271	1493	237
125°	335	371	606	1004	1182	297
135°	401	443	602	866	974	310
145°	468	503	602	745	814	293
155°	534	552	606	668	693	246
165°	584	590	609	632	639	164
175°	611	611	612	616	614	58
180°	612	612	612	612	612	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	200.1	200.1	200.1	200.1	200.1
2.5°	198.5	206.8	216.2	227.1	231.6
5°	194.3	222.5	269.3	328.5	353.0
7.5°	186.8	244.1	391.6	550.1	599.0
10°	179.9	259.8	515.5	652.7	679.0
12.5°	172.2	280.7	593.2	689.7	716.7
15°	159.7	314.8	657.9	736.5	766.6
17.5°	146.8	353.3	687.9	765.4	781.8
20°	137.5	380.2	704.0	770.6	781.0
22.5°	129.1	400.3	715.6	766.0	777.1
25°	117.3	423.0	726.2	758.1	765.6
27.5°	106.0	428.9	721.5	742.5	749.8
30°	99.1	427.3	714.6	730.2	740.6
32.5°	92.9	422.6	704.6	719.7	742.1
35°	83.7	408.1	687.7	711.7	753.1
37.5°	75.8	384.8	665.4	714.6	754.4
40°	71.2	367.4	649.2	714.4	748.3
42.5°	66.6	347.0	630.8	706.7	740.6
45°	60.6	312.6	602.1	691.3	723.3
47.5°	55.0	273.9	575.5	669.9	693.3
50°	51.9	247.5	557.8	650.6	669.4
52.5°	48.9	221.9	540.1	627.5	644.8
55°	45.2	186.3	510.7	587.0	602.1
57.5°	41.9	155.7	477.2	542.4	554.6
60°	40.4	139.1	451.1	510.0	522.3
62.5°	38.1	124.0	421.8	476.2	487.6
65°	35.6	105.2	376.1	421.4	429.0
67.5°	32.1	91.2	327.4	355.2	341.1
70°	29.8	84.4	294.3	303.0	262.6
72.5°	28.3	76.8	258.1	235.2	158.7
75°	25.0	64.5	200.1	107.8	109.6
77.5°	20.4	49.9	131.6	82.8	84.4
80°	17.3	40.8	69.2	67.3	68.3
82.5°	14.2	31.7	47.7	49.6	48.3
85°	8.7	19.0	24.0	16.3	14.4
87.5°	3.1	7.2	6.2	5.2	5.0
90°	0.0	1.9	11.5	6.7	5.8
92.5°	10.8	43.5	156.2	51.8	37.3
95°	31.7	100.4	482.7	178.3	112.5
97.5°	61.3	127.7	760.8	503.4	306.5
100°	79.8	144.7	850.0	821.8	551.9
102.5°	100.6	163.2	831.5	1152.6	918.8
105°	134.6	189.1	759.6	1442.6	1371.2
107.5°	166.9	219.0	690.4	1471.3	1554.0
110°	188.5	238.3	655.8	1435.2	1585.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	209.2	257.6	635.0	1374.5	1564.8
115°	239.4	285.5	614.4	1271.4	1493.3
117.5°	269.4	313.0	607.1	1174.8	1401.9
120°	289.4	330.8	604.8	1118.4	1336.5
122.5°	307.9	347.0	604.8	1068.8	1270.4
125°	334.6	371.3	605.8	1004.0	1181.7
127.5°	356.3	394.3	604.8	955.2	1106.7
130°	370.2	409.7	604.8	927.2	1064.4
132.5°	382.5	422.7	604.0	901.5	1028.3
135°	401.0	443.3	601.9	865.9	974.0
137.5°	421.5	461.8	601.9	827.9	928.1
140°	434.6	474.1	601.9	803.1	898.1
142.5°	447.7	485.7	601.2	780.5	863.5
145°	468.3	503.1	601.9	744.9	814.4
147.5°	488.8	518.4	603.1	715.4	768.8
150°	501.9	529.2	603.8	699.1	744.2
152.5°	514.2	538.5	604.6	685.1	721.9
155°	533.7	551.5	605.8	667.9	693.3
157.5°	550.6	565.1	606.9	655.2	672.9
160°	560.6	572.8	607.7	647.4	660.6
162.5°	570.6	579.8	608.5	640.4	651.3
165°	583.7	590.2	608.7	631.9	639.4
167.5°	594.8	598.2	609.8	625.3	628.5
170°	601.0	602.8	610.6	622.1	623.1
172.5°	604.8	605.9	610.6	619.0	619.2
175°	610.6	610.6	611.5	616.3	614.4
177.5°	613.3	612.5	611.7	614.0	612.5
180°	612.5	612.5	612.5	612.5	612.5



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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	9.47	10.23	10.55	11.31	12.79	18.21	18.96	19.29	20.04	21.52
	3H	10.20	10.87	11.28	11.96	13.46	19.82	20.50	20.91	21.59	23.08
	4H	10.49	11.13	11.59	12.22	13.72	20.00	20.64	21.10	21.73	23.23
	6H	10.70	11.29	11.81	12.38	13.90	20.08	20.67	21.19	21.76	23.28
	8H	10.76	11.32	11.87	12.43	13.93	20.08	20.64	21.19	21.75	23.26
	12H	10.78	11.31	11.90	12.42	13.95	20.05	20.58	21.16	21.68	23.22
4H	2H	13.86	14.50	14.96	15.59	17.09	18.64	19.28	19.75	20.37	21.87
	3H	14.78	15.31	15.89	16.43	17.95	20.45	20.99	21.57	22.11	23.62
	4H	15.06	15.55	16.18	16.66	18.19	20.69	21.18	21.80	22.28	23.82
	6H	15.18	15.60	16.31	16.73	18.26	20.83	21.25	21.95	22.38	23.90
	8H	15.20	15.59	16.33	16.72	18.26	20.85	21.24	21.97	22.36	23.91
	12H	15.19	15.54	16.33	16.68	18.23	20.82	21.17	21.96	22.30	23.86
8H	4H	16.23	16.62	17.35	17.74	19.28	20.80	21.19	21.92	22.31	23.85
	6H	16.46	16.78	17.60	17.94	19.49	21.00	21.32	22.14	22.48	24.02
	8H	16.53	16.81	17.68	17.95	19.51	21.06	21.34	22.21	22.48	24.04
	12H	16.55	16.79	17.70	17.94	19.53	21.04	21.29	22.20	22.43	24.03
12H	4H	16.24	16.59	17.38	17.73	19.28	20.74	21.10	21.88	22.23	23.78
	6H	16.55	16.83	17.70	17.98	19.54	20.98	21.26	22.13	22.40	23.97
	8H	16.65	16.90	17.80	18.04	19.63	21.04	21.29	22.20	22.43	24.02