

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: P853884

Luminaire Tested: SQ2-FB-125U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853884
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-125U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

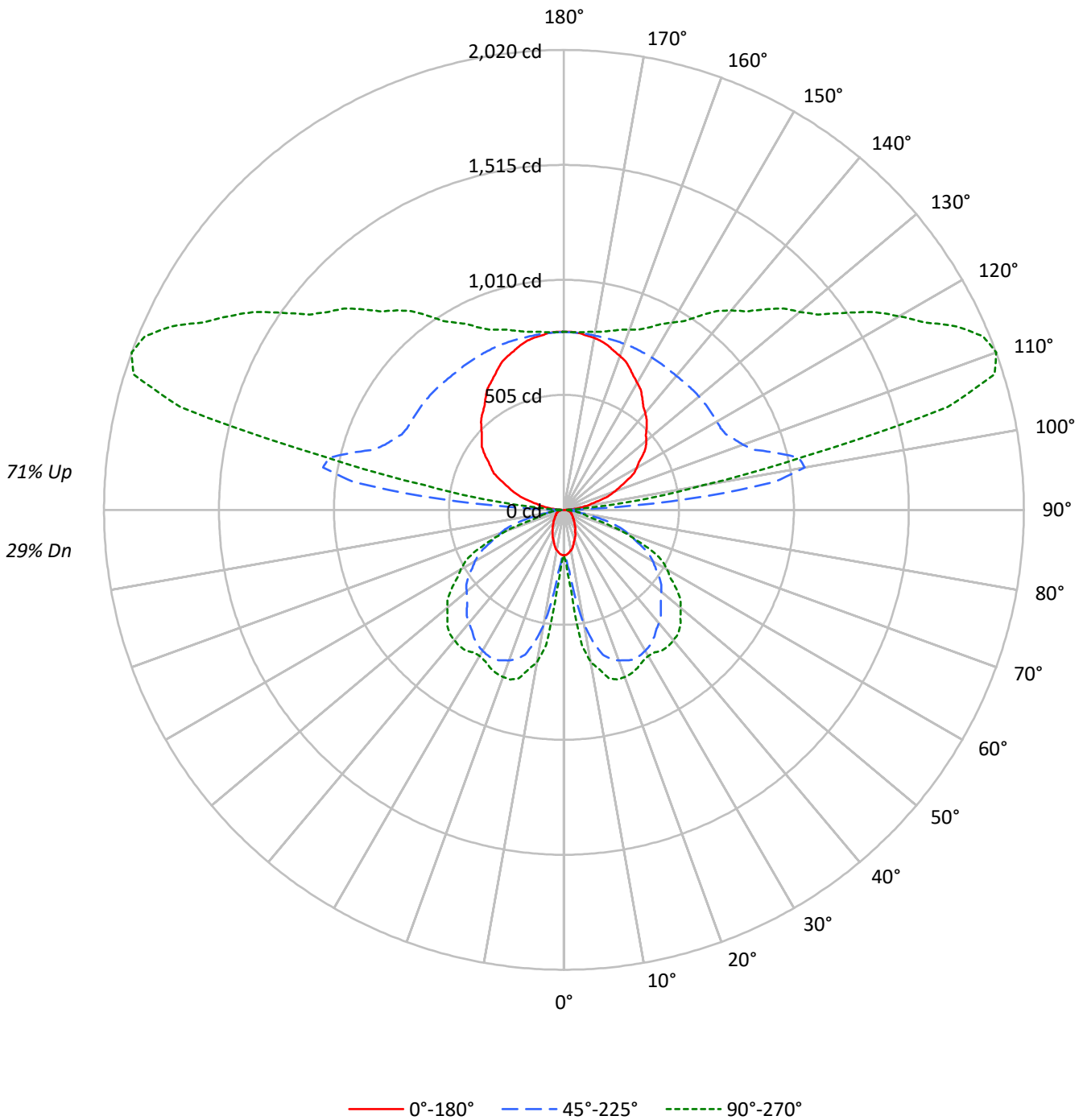
Lumens per Lamp: N/A
Luminaire Lumens: 6801.6 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 61.7
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	102	102	102	102	92	92	92	92	72	72	72	54	54	54	37	37	37	29
1	93	89	85	82	83	80	76	74	63	60	58	47	46	44	32	32	31	24
2	84	77	71	66	75	69	64	60	55	51	48	41	39	37	28	27	26	20
3	77	68	60	55	68	61	55	50	48	43	40	36	33	31	25	23	22	17
4	70	59	52	46	62	53	47	42	42	37	34	32	28	26	22	20	18	14
5	64	53	45	39	57	47	41	35	37	32	29	28	25	22	19	17	16	12
6	59	47	39	33	52	42	35	30	33	28	25	25	22	19	17	15	13	10
7	54	42	34	29	48	38	31	26	30	25	21	23	19	17	16	14	12	9
8	50	38	30	25	45	34	28	23	27	22	19	21	17	15	14	12	10	8
9	46	34	27	22	41	31	25	20	25	20	17	19	15	13	13	11	9	7
10	43	31	24	20	39	28	22	18	23	18	15	17	14	11	12	10	8	6

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	0.5
10°-20°	153.0	2.2
20°-30°	269.2	4.0
30°-40°	348.4	5.1
40°-50°	384.3	5.6
50°-60°	358.8	5.3
60°-70°	277.3	4.1
70°-80°	127.9	1.9
80°-90°	25.3	0.4
90°-100°	299.1	4.4
100°-110°	973.7	14.3
110°-120°	963.2	14.2
120°-130°	787.1	11.6
130°-140°	643.3	9.5
140°-150°	501.1	7.4
150°-160°	361.2	5.3
160°-170°	220.8	3.2
170°-180°	74.5	1.1
0°-30°	455.7	6.7
0°-40°	804.1	11.8
0°-60°	1547.2	22.7
0°-90°	1977.7	29.1
90°-120°	2236.0	32.9
90°-150°	4167.5	61.3
90°-180°	4824.0	70.9
0°-180°	6801.6	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	3	7	6	6	2
95°	40	123	548	195	120	47
105°	165	239	965	1842	1744	176
115°	306	365	786	1619	1905	303
125°	425	474	775	1278	1507	378
135°	514	567	771	1103	1244	397
145°	600	644	769	950	1040	376
155°	685	707	774	851	883	315
165°	747	754	776	805	814	210
175°	779	779	779	785	783	74
180°	782	782	782	782	782	



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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	7.4	5.2	5.0	5.0
90°	0.0	2.8	6.7	5.8	5.8
92.5°	13.8	49.8	159.1	52.4	40.4
95°	40.4	123.1	548.2	195.4	120.2
97.5°	76.0	160.2	930.3	566.6	345.8
100°	99.1	181.8	1074.2	957.9	621.3
102.5°	125.2	205.0	1056.5	1417.1	1077.5
105°	165.4	238.8	964.6	1842.3	1744.5
107.5°	208.9	277.9	877.3	1879.2	1982.8
110°	240.4	303.4	835.7	1833.4	2020.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	266.6	328.8	809.5	1750.8	1992.0
115°	305.8	365.1	785.7	1619.2	1905.1
117.5°	346.2	399.6	776.5	1498.8	1783.4
120°	369.3	421.9	774.2	1424.8	1700.3
122.5°	391.6	443.5	774.9	1360.5	1617.2
125°	425.1	474.0	775.1	1278.5	1507.0
127.5°	453.7	503.7	774.9	1217.0	1407.5
130°	472.2	523.0	774.2	1181.9	1352.1
132.5°	488.3	541.4	773.4	1149.4	1309.0
135°	513.5	567.1	771.3	1103.4	1244.4
137.5°	538.2	592.1	769.2	1056.7	1181.9
140°	555.9	607.6	768.4	1025.0	1143.4
142.5°	572.8	622.2	768.4	994.7	1100.4
145°	600.1	644.3	769.4	950.3	1040.5
147.5°	626.6	665.0	770.7	912.5	982.3
150°	644.3	678.2	772.2	889.9	949.2
152.5°	662.0	689.9	773.0	872.7	920.0
155°	684.7	707.3	774.2	850.9	882.8
157.5°	706.3	722.4	775.3	834.7	857.1
160°	719.3	732.5	776.1	824.6	842.4
162.5°	730.9	741.0	776.1	816.0	829.4
165°	747.2	753.8	776.1	805.1	814.5
167.5°	758.8	762.9	776.3	797.0	801.9
170°	766.5	768.3	777.0	791.5	793.4
172.5°	771.9	773.0	778.6	788.4	788.0
175°	779.0	779.0	779.0	784.7	782.8
177.5°	781.9	781.1	780.3	784.1	781.1
180°	781.9	781.9	781.9	781.9	781.9



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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	8.81	9.53	9.93	10.64	12.18	17.55	18.26	18.66	19.37	20.92
	3H	9.53	10.17	10.66	11.29	12.85	19.16	19.80	20.28	20.92	22.48
	4H	9.83	10.43	10.96	11.55	13.11	19.33	19.94	20.47	21.06	22.62
	6H	10.03	10.59	11.17	11.71	13.29	19.41	19.97	20.55	21.09	22.67
	8H	10.09	10.62	11.23	11.76	13.32	19.41	19.94	20.56	21.08	22.65
	12H	10.11	10.61	11.26	11.75	13.34	19.38	19.88	20.53	21.01	22.60
4H	2H	13.19	13.80	14.33	14.92	16.48	17.97	18.58	19.11	19.70	21.26
	3H	14.11	14.62	15.26	15.76	17.34	19.78	20.29	20.93	21.44	23.01
	4H	14.39	14.85	15.54	15.99	17.58	20.02	20.48	21.17	21.62	23.21
	6H	14.51	14.91	15.67	16.07	17.65	20.15	20.55	21.31	21.71	23.29
	8H	14.53	14.90	15.68	16.05	17.65	20.17	20.54	21.33	21.69	23.30
	12H	14.51	14.85	15.68	16.01	17.62	20.14	20.48	21.31	21.64	23.24
8H	4H	15.55	15.92	16.71	17.07	18.67	20.12	20.49	21.28	21.64	23.24
	6H	15.78	16.09	16.96	17.28	18.88	20.32	20.63	21.50	21.82	23.42
	8H	15.85	16.12	17.03	17.29	18.91	20.38	20.64	21.56	21.82	23.43
	12H	15.87	16.10	17.05	17.27	18.92	20.36	20.60	21.55	21.77	23.42
12H	4H	15.56	15.90	16.73	17.06	18.67	20.07	20.40	21.24	21.56	23.17
	6H	15.87	16.14	17.05	17.31	18.93	20.30	20.57	21.48	21.74	23.36
	8H	15.97	16.20	17.15	17.37	19.02	20.36	20.59	21.55	21.76	23.41