

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: P855238

Luminaire Tested: SQ2-FB-050U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855238
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-050U-125D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

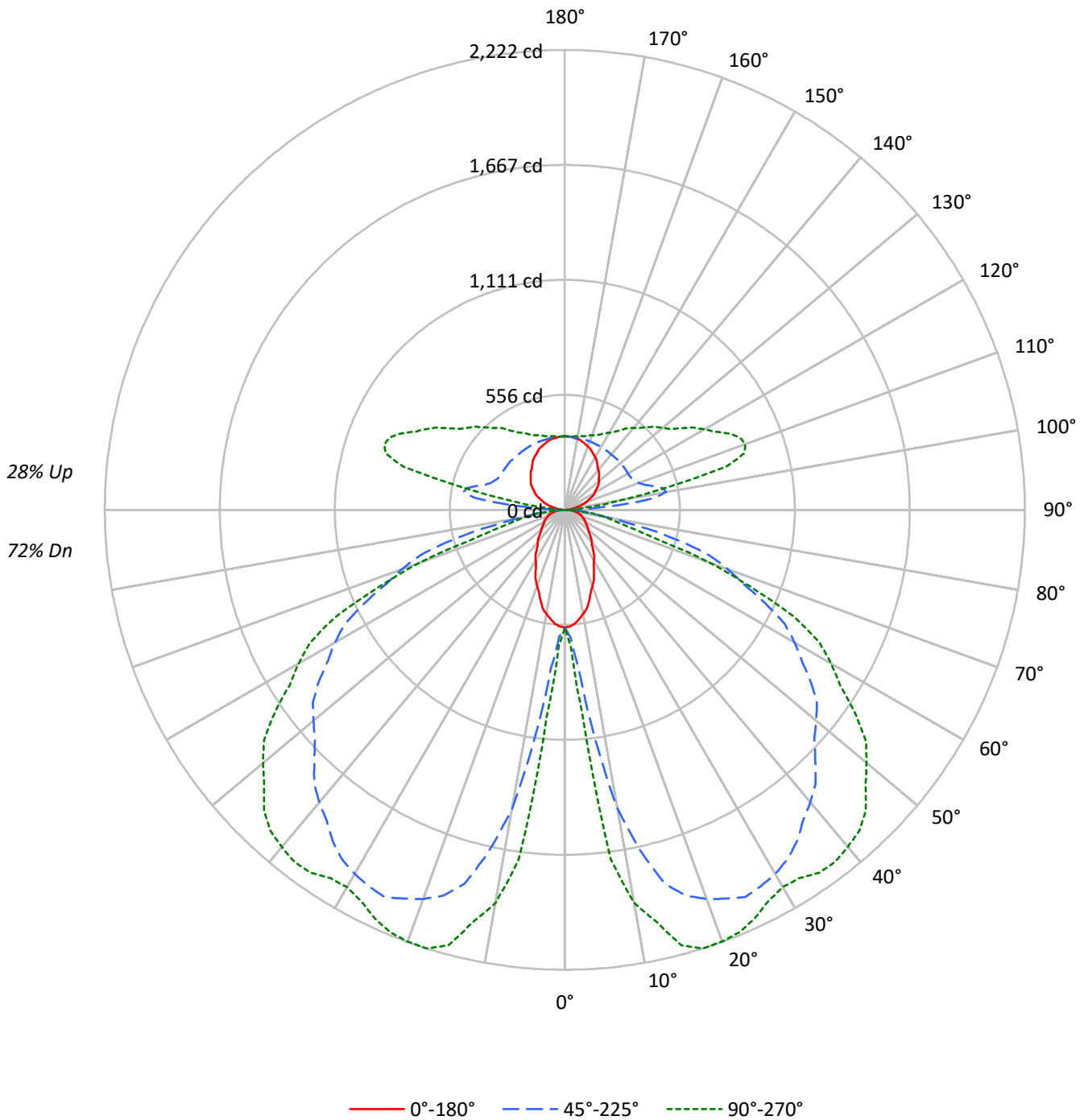
Lumens per Lamp: N/A
Luminaire Lumens: 7824.5 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64
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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	72
1	102	98	94	90	97	93	89	86	83	81	78	75	73	71	67	65	64	60
2	93	85	78	73	88	81	75	70	73	68	64	65	61	58	58	55	53	49
3	84	74	66	60	79	70	63	57	63	58	53	57	52	49	51	47	44	41
4	77	65	57	50	72	62	54	48	56	50	44	50	45	41	45	41	37	34
5	70	58	49	42	66	55	47	41	50	43	38	45	39	35	40	36	32	29
6	64	51	43	36	61	49	41	35	44	38	33	40	34	30	36	31	28	25
7	59	46	38	32	56	44	36	31	40	33	28	36	31	26	33	28	24	22
8	55	42	33	28	52	40	32	27	36	30	25	33	27	23	30	25	21	19
9	51	38	30	25	48	36	29	24	33	27	22	30	25	21	27	23	19	17
10	48	35	27	22	45	33	26	21	30	24	20	28	22	19	25	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9177	9177	9177
5°	8947	12402	16256
10°	8379	24017	31634
15°	7584	31248	36409
20°	6716	34374	38130
25°	5940	36761	38756
30°	5250	37860	39234
35°	4687	38518	42180
40°	4262	38883	44816
45°	3930	39064	46928
50°	3707	39815	47780
55°	3614	40850	48158
60°	3707	41391	47924
65°	3866	40825	46567
70°	4003	39479	35221
75°	4435	35458	19432
80°	4575	18299	18047
85°	4557	12671	7595

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 48597 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.2	1.2
10°-20°	434.7	5.6
20°-30°	764.9	9.8
30°-40°	990.1	12.7
40°-50°	1092.0	14.0
50°-60°	1019.5	13.0
60°-70°	788.0	10.1
70°-80°	363.5	4.6
80°-90°	69.9	0.9
90°-100°	141.5	1.8
100°-110°	448.9	5.7
110°-120°	440.2	5.6
120°-130°	358.2	4.6
130°-140°	292.1	3.7
140°-150°	227.7	2.9
150°-160°	164.1	2.1
160°-170°	100.2	1.3
170°-180°	33.8	0.4
0°-30°	1294.9	16.5
0°-40°	2285.0	29.2
0°-60°	4396.5	56.2
0°-90°	5617.8	71.8
90°-120°	1030.6	13.2
90°-150°	1908.6	24.4
90°-180°	2207.0	28.2
0°-180°	7824.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	568	568	568	568	568	
5°	552	632	765	934	1003	51
15°	454	895	1869	2093	2178	126
25°	333	1202	2064	2154	2176	153
35°	238	1160	1954	2022	2140	150
45°	172	888	1711	1964	2055	133
55°	128	529	1451	1668	1711	116
65°	101	299	1069	1198	1219	99
75°	71	183	568	306	312	73
85°	25	54	68	46	41	26
90°	0	1	3	3	3	2
95°	19	57	257	95	61	22
105°	78	110	442	843	808	82
115°	140	166	358	743	874	138
125°	193	216	352	582	686	172
135°	234	256	350	501	564	180
145°	273	293	350	432	470	171
155°	311	322	351	386	401	143
165°	339	342	352	366	369	96
175°	354	353	354	356	355	34
180°	355	355	355	355	355	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	568.4	568.4	568.4	568.4	568.4
2.5°	564.1	587.6	614.4	645.3	658.1
5°	552.0	632.3	765.2	933.5	1003.0
7.5°	530.8	693.7	1112.9	1563.2	1702.1
10°	511.1	738.2	1464.9	1854.7	1929.5
12.5°	489.2	797.6	1685.7	1959.7	2036.7
15°	453.7	894.6	1869.4	2092.7	2178.2
17.5°	417.0	1003.9	1954.6	2174.9	2221.5
20°	390.9	1080.3	2000.6	2189.8	2219.2
22.5°	366.8	1137.4	2033.4	2176.8	2208.3
25°	333.4	1201.9	2063.5	2154.1	2175.5
27.5°	301.1	1218.8	2050.3	2109.9	2130.7
30°	281.6	1214.2	2030.7	2075.0	2104.4
32.5°	264.0	1200.9	2002.3	2045.3	2108.9
35°	237.8	1159.7	1954.2	2022.4	2140.0
37.5°	215.4	1093.5	1890.7	2030.4	2143.8
40°	202.2	1044.1	1844.8	2030.1	2126.3
42.5°	189.1	986.0	1792.3	2008.3	2104.4
45°	172.1	888.4	1710.8	1964.3	2055.2
47.5°	156.3	778.5	1635.5	1903.7	1970.0
50°	147.6	703.4	1585.1	1848.8	1902.2
52.5°	138.9	630.6	1534.9	1783.0	1832.3
55°	128.4	529.3	1451.2	1668.1	1710.8
57.5°	119.2	442.5	1356.2	1541.1	1575.8
60°	114.8	395.4	1281.8	1449.3	1484.1
62.5°	108.2	352.5	1198.7	1353.0	1385.6
65°	101.2	298.9	1068.6	1197.5	1218.9
67.5°	91.3	259.2	930.3	1009.2	969.2
70°	84.8	239.7	836.3	861.0	746.1
72.5°	80.3	218.3	733.5	668.5	451.0
75°	71.1	183.3	568.4	306.2	311.5
77.5°	57.9	141.8	373.9	235.2	239.9
80°	49.2	116.0	196.8	191.4	194.1
82.5°	40.4	90.2	135.6	140.9	137.2
85°	24.6	54.0	68.4	46.3	41.0
87.5°	8.7	19.7	11.7	11.7	11.7
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.2	24.8	79.3	26.4	18.6
95°	19.0	57.3	257.0	95.3	61.4
97.5°	35.3	74.2	435.4	272.1	166.9
100°	47.0	84.1	496.1	452.3	293.9
102.5°	59.4	94.8	485.4	664.3	508.5
105°	78.2	109.9	442.5	842.9	807.9
107.5°	97.0	126.3	401.6	861.5	908.7
110°	109.5	137.9	381.0	840.0	927.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	122.0	148.7	369.4	803.0	914.0
115°	139.6	165.9	357.6	742.7	873.9
117.5°	156.8	181.7	352.9	684.7	816.8
120°	167.6	191.7	351.9	648.8	776.7
122.5°	178.4	201.5	351.9	619.9	739.1
125°	193.3	216.3	351.9	582.4	686.1
127.5°	206.5	228.6	351.9	553.2	641.7
130°	214.6	237.5	351.9	536.0	615.7
132.5°	222.6	245.6	351.2	522.4	594.2
135°	233.6	256.4	349.8	501.0	564.4
137.5°	244.3	268.3	349.6	480.4	537.1
140°	251.5	275.4	348.7	466.0	517.4
142.5°	260.4	283.5	349.6	451.6	499.5
145°	272.6	293.4	349.8	432.2	470.4
147.5°	285.0	302.6	350.0	415.1	446.3
150°	293.9	308.0	350.9	405.1	430.3
152.5°	301.0	313.5	350.9	397.0	417.7
155°	310.6	321.6	350.9	385.9	401.2
157.5°	320.9	328.4	351.9	379.1	389.5
160°	326.3	332.8	351.9	374.6	383.3
162.5°	331.7	336.4	351.9	371.0	377.1
165°	338.6	341.9	351.9	365.5	368.8
167.5°	345.0	345.9	353.1	361.7	364.5
170°	348.7	348.7	353.1	359.9	360.9
172.5°	350.5	351.3	353.1	358.1	358.3
175°	354.2	353.2	354.2	356.5	355.3
177.5°	355.3	354.4	354.4	356.2	354.4
180°	355.3	355.3	355.3	355.3	355.3



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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	16.55	17.69	17.29	18.46	19.37	25.29	26.43	26.02	27.19	28.11
	3H	17.30	18.33	18.05	19.10	20.05	26.93	27.96	27.68	28.73	29.68
	4H	17.61	18.58	18.39	19.37	20.33	27.12	28.09	27.89	28.88	29.84
	6H	17.85	18.74	18.63	19.53	20.51	27.22	28.12	28.01	28.91	29.89
	8H	17.91	18.77	18.71	19.58	20.56	27.24	28.09	28.03	28.90	29.88
	12H	17.95	18.76	18.75	19.57	20.58	27.22	28.03	28.02	28.84	29.84
4H	2H	20.98	21.95	21.76	22.74	23.70	25.76	26.73	26.54	27.52	28.48
	3H	21.94	22.75	22.73	23.57	24.55	27.62	28.42	28.40	29.24	30.22
	4H	22.24	22.97	23.04	23.79	24.80	27.87	28.60	28.67	29.42	30.43
	6H	22.39	23.02	23.21	23.87	24.88	28.03	28.66	28.85	29.51	30.52
	8H	22.42	23.01	23.24	23.85	24.87	28.06	28.66	28.88	29.49	30.52
	12H	22.42	22.96	23.27	23.81	24.85	28.05	28.58	28.89	29.44	30.47
8H	4H	23.44	24.03	24.26	24.87	25.90	28.01	28.60	28.83	29.44	30.47
	6H	23.69	24.18	24.54	25.06	26.09	28.23	28.72	29.08	29.60	30.62
	8H	23.76	24.20	24.63	25.07	26.12	28.29	28.73	29.16	29.60	30.65
	12H	23.80	24.19	24.67	25.05	26.15	28.30	28.68	29.17	29.55	30.65
12H	4H	23.47	24.00	24.31	24.86	25.89	27.97	28.51	28.82	29.37	30.40
	6H	23.79	24.22	24.65	25.10	26.14	28.21	28.65	29.08	29.53	30.57
	8H	23.90	24.29	24.77	25.15	26.25	28.29	28.68	29.16	29.54	30.64