

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: P855228

Luminaire Tested: SQ2-FB-100U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855228
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-125D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

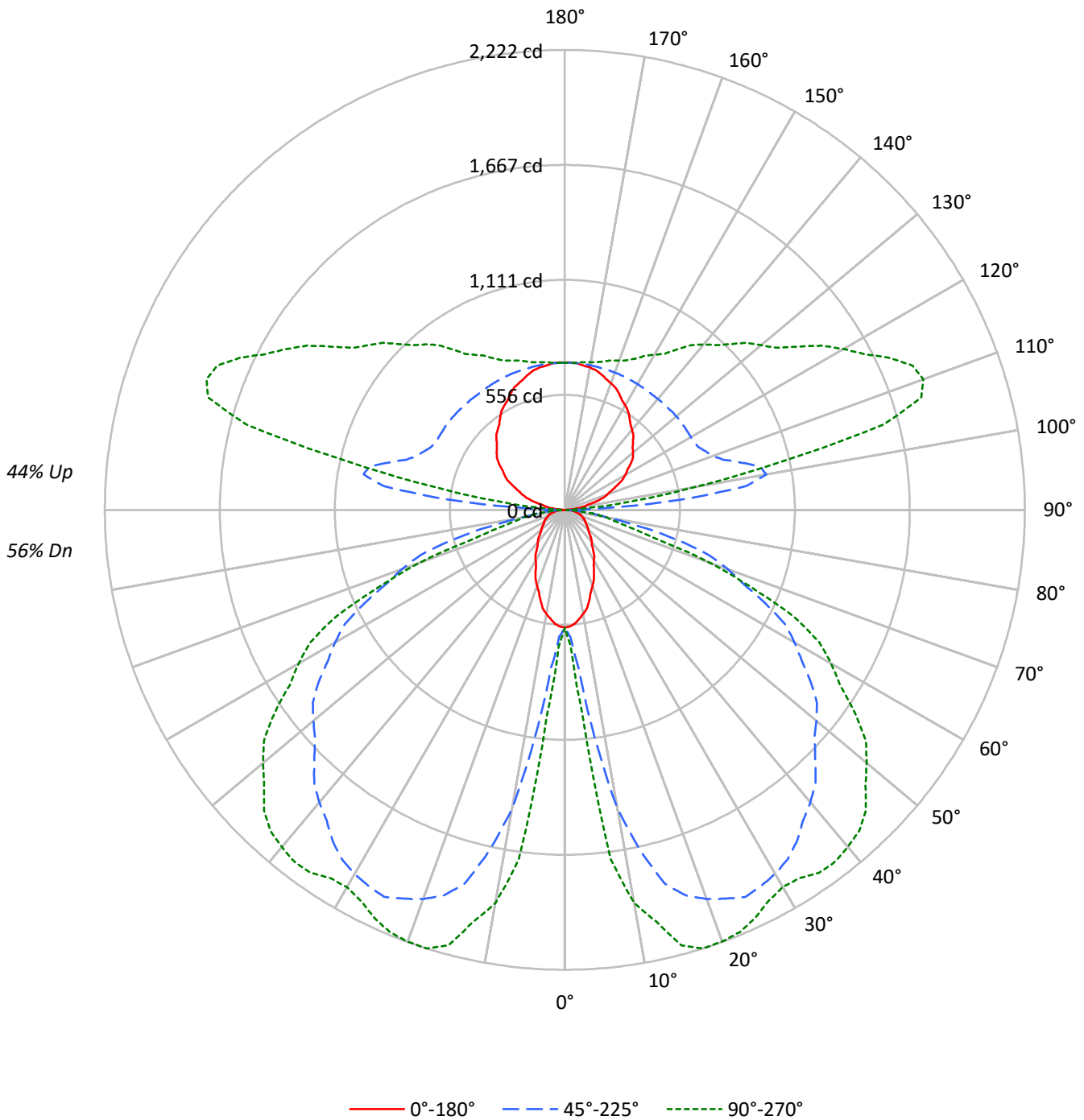
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10047.9 lumens
Efficiency: N/A
Efficacy: 122.8 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: General Diffuse

Input Watts (W): 81.8
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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	99	94	90	87	92	88	84	81	76	73	71	64	63	61	54	53	52	47
2	90	82	76	70	83	76	71	66	66	62	58	56	53	50	47	45	43	38
3	81	72	64	58	75	67	60	55	58	52	48	49	45	42	41	38	36	32
4	74	63	55	48	69	59	51	46	51	45	40	43	39	35	36	33	30	27
5	68	56	47	41	63	52	44	39	45	39	34	39	34	30	32	29	26	23
6	62	50	41	35	58	46	39	33	40	34	30	35	30	26	29	25	22	20
7	57	45	36	31	53	42	34	29	36	30	26	31	26	23	26	23	20	17
8	53	40	32	27	49	38	31	25	33	27	23	28	24	20	24	20	17	15
9	49	37	29	24	46	34	27	22	30	24	20	26	21	18	22	18	15	13
10	46	34	26	21	43	31	25	20	28	22	18	24	19	16	20	17	14	12

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	0.9
10°-20°	434.7	4.3
20°-30°	764.9	7.6
30°-40°	990.1	9.9
40°-50°	1092.0	10.9
50°-60°	1019.5	10.1
60°-70°	788.0	7.8
70°-80°	363.5	3.6
80°-90°	70.7	0.7
90°-100°	297.2	3.0
100°-110°	898.9	8.9
110°-120°	877.5	8.7
120°-130°	717.1	7.1
130°-140°	585.3	5.8
140°-150°	455.7	4.5
150°-160°	328.5	3.3
160°-170°	201.1	2.0
170°-180°	67.9	0.7
0°-30°	1294.9	12.9
0°-40°	2285.0	22.7
0°-60°	4396.5	43.8
0°-90°	5618.6	55.9
90°-120°	2073.7	20.6
90°-150°	3831.8	38.1
90°-180°	4429.0	44.1
0°-180°	10047.9	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	2	13	8	7	3
95°	37	117	561	207	131	44
105°	156	220	883	1676	1593	164
115°	278	332	714	1477	1735	275
125°	389	431	704	1167	1373	345
135°	466	515	699	1006	1132	361
145°	544	584	699	866	946	341
155°	620	641	704	776	806	285
165°	678	686	707	734	743	191
175°	709	709	711	716	714	67
180°	712	712	712	712	712	



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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	19.9	13.6	12.4	12.2
90°	0.0	2.2	13.4	7.8	6.7
92.5°	12.6	50.6	181.4	60.2	43.3
95°	36.9	116.6	560.9	207.2	130.7
97.5°	71.3	148.4	883.9	585.0	356.1
100°	92.7	168.1	987.6	954.8	641.3
102.5°	116.9	189.7	966.2	1339.2	1067.6
105°	156.4	219.8	882.6	1676.2	1593.2
107.5°	194.0	254.5	802.2	1709.6	1805.7
110°	219.0	276.9	761.9	1667.5	1842.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	243.1	299.2	737.8	1597.1	1818.2
115°	278.2	331.7	714.0	1477.3	1735.1
117.5°	313.0	363.7	705.5	1365.0	1628.9
120°	336.3	384.3	702.8	1299.5	1553.0
122.5°	357.7	403.2	702.8	1241.9	1476.1
125°	388.8	431.4	703.9	1166.6	1373.0
127.5°	414.1	458.2	702.8	1109.8	1285.9
130°	430.1	476.0	702.8	1077.3	1236.8
132.5°	444.4	491.1	701.9	1047.6	1194.8
135°	465.9	515.0	699.4	1006.2	1131.8
137.5°	489.8	536.5	699.4	961.9	1078.4
140°	504.9	550.9	699.4	933.2	1043.5
142.5°	520.2	564.4	698.5	906.9	1003.3
145°	544.1	584.5	699.4	865.5	946.3
147.5°	568.0	602.3	700.7	831.3	893.3
150°	583.3	614.8	701.6	812.3	864.7
152.5°	597.5	625.7	702.5	796.0	838.8
155°	620.0	640.9	703.9	776.1	805.5
157.5°	639.7	656.6	705.3	761.3	781.9
160°	651.4	665.5	706.0	752.2	767.5
162.5°	662.9	673.7	707.0	744.2	756.9
165°	678.2	685.8	707.2	734.2	742.9
167.5°	691.1	695.1	708.5	726.5	730.3
170°	698.2	700.5	709.4	722.9	723.9
172.5°	702.8	704.0	709.4	719.3	719.5
175°	709.4	709.4	710.6	716.1	714.0
177.5°	712.6	711.7	710.8	713.4	711.7
180°	711.7	711.7	711.7	711.7	711.7



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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	15.29	16.24	16.19	17.16	18.34	24.03	24.97	24.92	25.90	27.08
	3H	16.03	16.88	16.94	17.81	19.02	25.65	26.51	26.57	27.44	28.64
	4H	16.33	17.14	17.26	18.07	19.29	25.84	26.64	26.77	27.58	28.80
	6H	16.55	17.29	17.49	18.24	19.47	25.93	26.67	26.87	27.61	28.84
	8H	16.61	17.32	17.56	18.28	19.51	25.94	26.64	26.88	27.60	28.83
	12H	16.64	17.32	17.60	18.27	19.53	25.91	26.58	26.86	27.54	28.79
4H	2H	19.70	20.50	20.63	21.44	22.66	24.48	25.28	25.41	26.22	27.44
	3H	20.64	21.31	21.58	22.28	23.51	26.31	26.98	27.26	27.95	29.18
	4H	20.93	21.54	21.88	22.50	23.76	26.56	27.17	27.51	28.13	29.38
	6H	21.06	21.59	22.03	22.58	23.83	26.71	27.23	27.67	28.22	29.47
	8H	21.09	21.58	22.06	22.56	23.83	26.73	27.23	27.70	28.21	29.48
	12H	21.08	21.53	22.07	22.52	23.80	26.71	27.16	27.70	28.15	29.43
8H	4H	22.11	22.60	23.08	23.58	24.85	26.68	27.17	27.65	28.15	29.42
	6H	22.35	22.76	23.35	23.78	25.05	26.89	27.30	27.89	28.32	29.59
	8H	22.42	22.78	23.43	23.79	25.08	26.95	27.31	27.96	28.32	29.61
	12H	22.45	22.77	23.46	23.77	25.10	26.95	27.27	27.96	28.27	29.60
12H	4H	22.13	22.58	23.12	23.57	24.85	26.64	27.08	27.63	28.08	29.35
	6H	22.45	22.81	23.45	23.81	25.10	26.87	27.23	27.88	28.24	29.53
	8H	22.56	22.87	23.56	23.87	25.21	26.95	27.26	27.95	28.26	29.60