

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: P855223

Luminaire Tested: SQ2-FB-150U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855223
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-150U-125D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

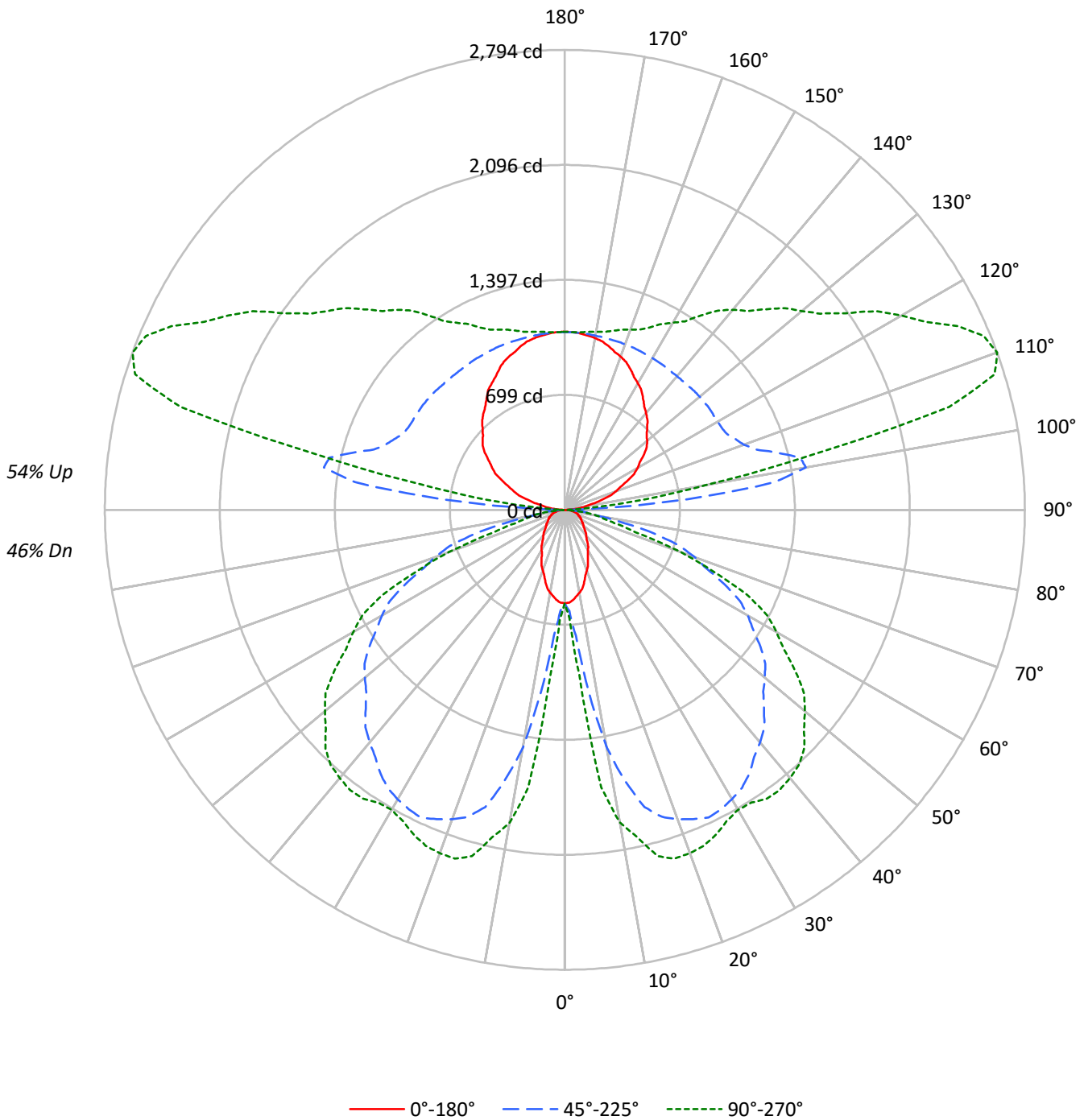
Lumens per Lamp: N/A
Luminaire Lumens: 12289.3 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 105.8
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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46
1	97	92	88	85	89	85	81	78	71	68	66	58	56	55	46	45	44	38
2	88	80	74	69	80	74	68	64	62	58	54	50	48	45	40	38	36	31
3	80	70	63	57	73	64	58	53	54	49	45	44	41	38	35	32	30	26
4	73	62	54	47	66	57	50	44	47	42	38	39	35	32	31	28	26	22
5	66	55	46	40	61	50	43	38	42	37	32	35	30	27	28	24	22	19
6	61	49	40	34	56	45	38	32	38	32	28	31	27	23	25	22	19	16
7	56	44	36	30	51	40	33	28	34	28	24	28	24	20	22	19	17	14
8	52	39	32	26	47	36	29	24	31	25	21	25	21	18	20	17	15	12
9	48	36	28	23	44	33	26	22	28	23	19	23	19	16	19	15	13	11
10	45	33	25	20	41	30	24	19	26	20	17	21	17	14	17	14	12	10

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	0.8
10°-20°	434.7	3.5
20°-30°	764.9	6.2
30°-40°	990.1	8.1
40°-50°	1092.0	8.9
50°-60°	1019.5	8.3
60°-70°	788.0	6.4
70°-80°	363.5	3.0
80°-90°	70.6	0.6
90°-100°	411.8	3.4
100°-110°	1348.5	11.0
110°-120°	1333.2	10.8
120°-130°	1089.8	8.9
130°-140°	889.3	7.2
140°-150°	692.1	5.6
150°-160°	498.3	4.1
160°-170°	304.9	2.5
170°-180°	103.0	0.8
0°-30°	1294.9	10.5
0°-40°	2285.0	18.6
0°-60°	4396.5	35.8
0°-90°	5618.5	45.7
90°-120°	3093.4	25.2
90°-150°	5764.6	46.9
90°-180°	6671.0	54.3
0°-180°	12289.3	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°	1	3	9	8	9	4
95°	58	168	749	267	173	65
105°	234	334	1338	2543	2416	247
115°	422	505	1087	2247	2638	417
125°	588	655	1072	1772	2082	523
135°	708	782	1063	1528	1723	547
145°	828	888	1061	1315	1441	519
155°	943	975	1068	1176	1222	434
165°	1030	1039	1072	1113	1125	290
175°	1076	1076	1078	1085	1083	102
180°	1081	1081	1081	1081	1081	



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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°	8.9	20.1	12.7	12.4	12.7
90°	1.1	3.3	8.9	7.8	8.9
92.5°	18.9	68.8	211.5	68.8	55.1
95°	57.7	167.5	748.7	266.7	173.3
97.5°	104.9	220.9	1284.6	777.0	481.6
100°	137.7	248.5	1486.2	1327.2	879.8
102.5°	175.1	283.3	1464.0	1955.6	1516.0
105°	234.4	334.3	1338.5	2543.1	2416.0
107.5°	292.8	384.4	1216.1	2598.0	2737.6
110°	331.0	420.1	1157.5	2534.0	2793.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	367.5	453.9	1121.9	2422.9	2755.4
115°	422.1	504.6	1087.4	2247.1	2638.1
117.5°	475.2	552.3	1074.4	2074.5	2471.4
120°	509.8	582.6	1070.8	1973.7	2360.4
122.5°	540.9	612.0	1070.8	1886.9	2245.8
125°	587.6	654.9	1071.9	1772.1	2081.6
127.5°	627.2	695.7	1070.6	1687.4	1956.8
130°	652.1	721.5	1069.6	1636.2	1879.5
132.5°	674.2	745.5	1067.0	1592.1	1812.8
135°	707.5	782.5	1063.0	1528.4	1722.8
137.5°	742.7	816.9	1060.6	1462.0	1637.7
140°	767.6	839.2	1059.7	1420.0	1586.3
142.5°	792.4	859.7	1059.7	1375.2	1525.8
145°	827.6	888.4	1060.8	1314.7	1440.7
147.5°	864.4	915.1	1062.4	1262.0	1357.2
150°	887.6	932.0	1064.1	1231.5	1311.8
152.5°	910.6	949.9	1065.0	1206.2	1272.8
155°	943.0	974.6	1067.5	1176.3	1221.9
157.5°	972.2	995.0	1069.9	1152.6	1185.6
160°	990.8	1009.3	1070.8	1139.1	1165.2
162.5°	1006.8	1021.8	1070.8	1128.3	1147.4
165°	1029.7	1039.4	1071.9	1113.3	1125.2
167.5°	1049.1	1053.8	1073.3	1101.6	1108.1
170°	1059.7	1061.8	1074.2	1095.3	1097.5
172.5°	1067.7	1069.0	1076.8	1090.8	1091.3
175°	1076.3	1076.3	1077.5	1085.2	1083.0
177.5°	1080.7	1079.9	1079.0	1084.2	1080.7
180°	1080.7	1080.7	1080.7	1080.7	1080.7

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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	14.36	15.21	15.35	16.21	17.54	23.10	23.94	24.08	24.95	26.28
	3H	15.09	15.85	16.09	16.86	18.21	24.72	25.48	25.72	26.49	27.84
	4H	15.39	16.11	16.40	17.13	18.48	24.90	25.62	25.91	26.63	27.99
	6H	15.61	16.27	16.63	17.29	18.66	24.98	25.65	26.00	26.67	28.04
	8H	15.66	16.29	16.69	17.33	18.70	24.99	25.62	26.01	26.66	28.02
	12H	15.69	16.29	16.72	17.32	18.71	24.96	25.56	25.99	26.59	27.98
4H	2H	18.76	19.48	19.77	20.49	21.85	23.54	24.26	24.56	25.27	26.63
	3H	19.69	20.29	20.72	21.33	22.71	25.36	25.96	26.39	27.01	28.38
	4H	19.97	20.52	21.01	21.56	22.95	25.60	26.15	26.63	27.18	28.58
	6H	20.10	20.57	21.15	21.63	23.02	25.74	26.22	26.79	27.28	28.67
	8H	20.12	20.56	21.17	21.62	23.02	25.77	26.21	26.82	27.26	28.67
	12H	20.11	20.51	21.18	21.58	22.99	25.74	26.14	26.81	27.21	28.62
8H	4H	21.15	21.59	22.19	22.64	24.04	25.72	26.16	26.76	27.21	28.61
	6H	21.38	21.74	22.45	22.84	24.24	25.92	26.28	26.99	27.38	28.78
	8H	21.45	21.77	22.53	22.85	24.27	25.98	26.30	27.06	27.38	28.80
	12H	21.48	21.76	22.56	22.83	24.30	25.97	26.25	27.06	27.33	28.79
12H	4H	21.16	21.56	22.23	22.63	24.04	25.67	26.07	26.73	27.13	28.54
	6H	21.48	21.80	22.55	22.87	24.30	25.90	26.22	26.98	27.30	28.72
	8H	21.58	21.86	22.66	22.93	24.40	25.97	26.25	27.05	27.32	28.79