

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: P855200

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855200
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-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: -

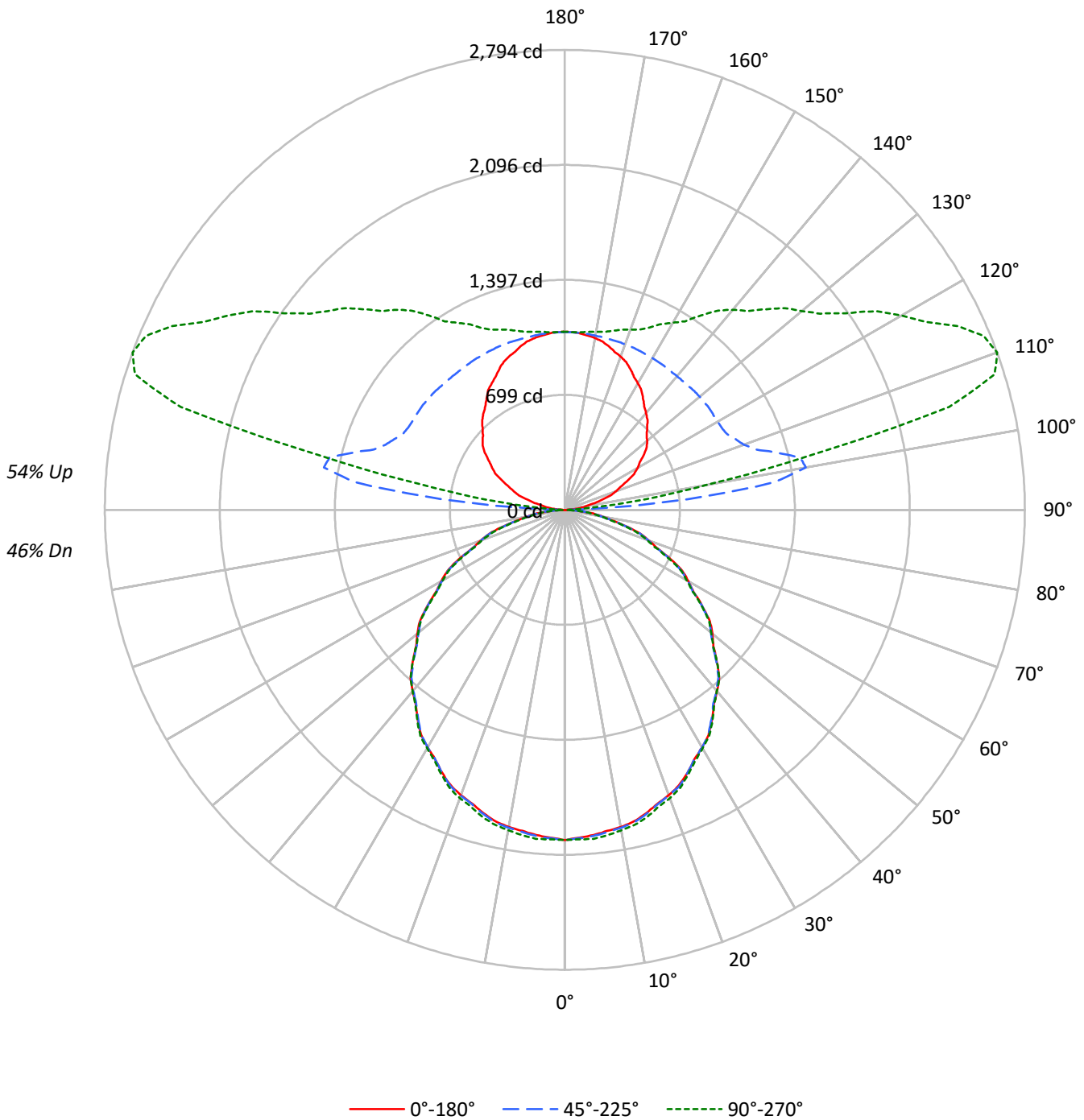
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12303.3 lumens
Efficiency: N/A
Efficacy: 116.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
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	69	64	62	58	55	51	48	45	40	38	37	32
3	80	71	63	57	73	65	59	53	54	50	46	45	41	38	36	33	31	27
4	73	62	54	48	67	57	50	45	48	43	39	40	36	33	32	29	27	23
5	67	55	47	41	61	51	44	39	43	38	33	35	31	28	28	25	23	20
6	62	50	42	36	56	46	39	33	39	33	29	32	28	25	26	23	20	17
7	57	45	37	31	52	41	34	29	35	29	25	29	25	22	23	20	18	15
8	53	41	33	27	48	38	31	26	32	26	22	27	22	19	22	18	16	14
9	49	37	29	24	45	34	28	23	29	24	20	24	20	17	20	17	14	12
10	46	34	27	22	42	31	25	21	27	22	18	22	18	16	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32389	32389	32389
5°	32157	32246	32512
10°	32083	32172	32396
15°	31886	31978	32298
20°	31696	31746	32027
25°	31404	31404	31600
30°	31083	31083	31183
35°	30705	30597	30813
40°	30300	30184	30300
45°	29830	29707	29830
50°	29381	29107	29175
55°	28696	28620	28468
60°	27978	27800	27622
65°	27148	26835	26521
70°	25549	25416	24902
75°	24036	23531	22845
80°	21348	20837	20074
85°	17210	15709	14672

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 30013 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.6	1.5
10°-20°	541.8	4.4
20°-30°	815.2	6.6
30°-40°	975.4	7.9
40°-50°	1006.4	8.2
50°-60°	907.9	7.4
60°-70°	692.8	5.6
70°-80°	398.3	3.2
80°-90°	105.1	0.9
90°-100°	411.8	3.3
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°	1546.6	12.6
0°-40°	2522.0	20.5
0°-60°	4436.3	36.1
0°-90°	5632.5	45.8
90°-120°	3093.4	25.1
90°-150°	5764.6	46.9
90°-180°	6671.0	54.2
0°-180°	12303.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2006	2006	2006	2006	2006	
5°	1984	2011	1990	1993	2006	188
15°	1908	1932	1913	1922	1932	538
25°	1763	1782	1763	1766	1774	812
35°	1558	1568	1552	1558	1563	974
45°	1306	1314	1301	1304	1306	1008
55°	1019	1025	1017	1011	1011	911
65°	711	708	702	697	694	699
75°	385	383	377	369	366	406
85°	93	88	85	77	79	108
90°	1	3	9	8	9	7
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°	2006.0	2006.0	2006.0	2006.0	2006.0
2.5°	1992.9	2016.4	1997.3	2001.7	2003.8
5°	1984.1	2010.9	1989.6	1992.6	2006.0
7.5°	1967.7	1996.6	1973.3	1978.5	1993.4
10°	1956.9	1983.6	1962.3	1965.2	1976.0
12.5°	1939.3	1966.0	1944.8	1950.0	1960.6
15°	1907.6	1931.6	1913.1	1921.6	1932.2
17.5°	1871.0	1896.7	1876.0	1883.2	1892.4
20°	1844.7	1866.1	1847.6	1850.5	1864.0
22.5°	1812.0	1833.4	1816.9	1817.7	1828.9
25°	1762.8	1781.5	1762.8	1765.7	1773.8
27.5°	1706.4	1722.5	1706.4	1709.4	1716.3
30°	1667.2	1683.1	1667.2	1669.9	1672.6
32.5°	1623.4	1637.3	1621.2	1624.2	1631.1
35°	1557.8	1568.5	1552.3	1558.0	1563.3
37.5°	1487.8	1495.8	1482.4	1485.2	1490.1
40°	1437.6	1445.6	1432.1	1434.8	1437.6
42.5°	1387.3	1393.2	1379.6	1382.4	1387.3
45°	1306.4	1314.4	1301.0	1303.7	1306.4
47.5°	1224.3	1229.2	1217.8	1215.7	1220.6
50°	1169.7	1172.4	1158.8	1158.8	1161.5
52.5°	1110.7	1113.3	1104.2	1099.9	1102.5
55°	1019.4	1024.7	1016.7	1011.3	1011.3
57.5°	927.6	932.4	922.1	919.4	918.8
60°	866.4	869.0	860.9	858.1	855.4
62.5°	805.2	805.6	797.5	794.7	792.1
65°	710.6	707.9	702.4	696.9	694.2
67.5°	604.5	607.3	601.8	593.1	593.1
70°	541.2	543.8	538.4	527.5	527.5
72.5°	479.9	478.4	475.0	466.1	461.8
75°	385.3	382.7	377.2	368.9	366.2
77.5°	290.8	288.1	285.3	275.0	277.1
80°	229.6	226.9	224.1	215.9	215.9
82.5°	175.0	170.1	167.3	159.1	159.1
85°	92.9	87.6	84.8	76.6	79.2
87.5°	26.5	24.8	23.7	19.0	19.2
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	19.65	20.48	20.64	21.49	22.82	19.57	20.41	20.56	21.41	22.74
	3H	21.43	22.18	22.43	23.19	24.54	21.31	22.06	22.31	23.07	24.42
	4H	22.09	22.80	23.10	23.81	25.17	21.93	22.64	22.95	23.66	25.02
	6H	22.55	23.21	23.58	24.23	25.60	22.37	23.02	23.39	24.04	25.41
	8H	22.69	23.31	23.72	24.35	25.72	22.49	23.11	23.52	24.15	25.51
	12H	22.76	23.36	23.80	24.39	25.78	22.54	23.13	23.58	24.16	25.56
4H	2H	20.20	20.91	21.22	21.92	23.28	20.14	20.85	21.16	21.86	23.22
	3H	22.18	22.78	23.21	23.82	25.19	22.07	22.67	23.10	23.71	25.08
	4H	22.97	23.51	24.01	24.55	25.94	22.83	23.37	23.86	24.41	25.80
	6H	23.56	24.03	24.61	25.09	26.48	23.38	23.85	24.43	24.91	26.30
	8H	23.75	24.18	24.79	25.23	26.64	23.54	23.98	24.59	25.03	26.44
	12H	23.85	24.24	24.91	25.31	26.72	23.62	24.01	24.69	25.08	26.49
8H	4H	23.22	23.65	24.26	24.70	26.11	23.09	23.53	24.14	24.58	25.98
	6H	23.93	24.29	25.00	25.39	26.79	23.77	24.13	24.84	25.22	26.62
	8H	24.20	24.52	25.28	25.59	27.02	24.01	24.32	25.09	25.40	26.82
	12H	24.37	24.65	25.45	25.72	27.18	24.14	24.42	25.22	25.49	26.95
12H	4H	23.21	23.60	24.27	24.67	26.08	23.09	23.48	24.15	24.55	25.96
	6H	23.98	24.29	25.05	25.37	26.79	23.82	24.13	24.90	25.21	26.63
	8H	24.27	24.55	25.35	25.62	27.08	24.08	24.36	25.16	25.43	26.90