

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: P853738

Luminaire Tested: SQ2-F-150U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853738
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-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

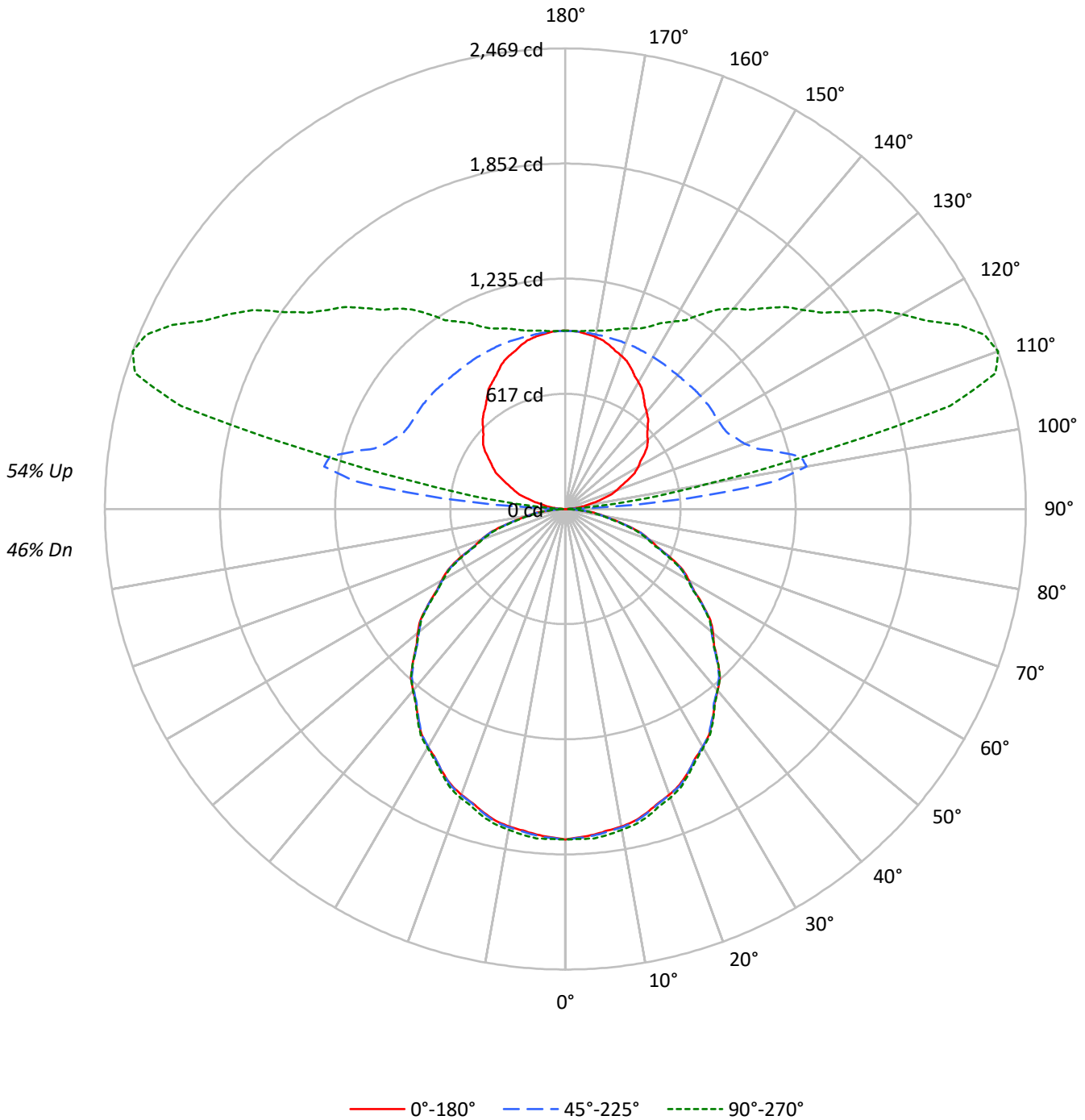
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10871.9 lumens
Efficiency: N/A
Efficacy: 102.8 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°	28620	28620	28620
5°	28417	28494	28729
10°	28350	28429	28627
15°	28177	28257	28540
20°	28008	28051	28301
25°	27750	27750	27923
30°	27466	27466	27555
35°	27133	27037	27228
40°	26774	26673	26774
45°	26359	26250	26359
50°	25962	25721	25782
55°	25357	25289	25154
60°	24723	24564	24409
65°	23988	23713	23435
70°	22575	22461	22003
75°	21241	20792	20187
80°	18866	18410	17741
85°	15209	13875	12968

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 26521 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.6	1.5
10°-20°	478.8	4.4
20°-30°	720.3	6.6
30°-40°	861.9	7.9
40°-50°	889.3	8.2
50°-60°	802.3	7.4
60°-70°	612.2	5.6
70°-80°	352.0	3.2
80°-90°	92.9	0.9
90°-100°	363.9	3.3
100°-110°	1191.6	11.0
110°-120°	1178.0	10.8
120°-130°	963.0	8.9
130°-140°	785.9	7.2
140°-150°	611.6	5.6
150°-160°	440.4	4.1
160°-170°	269.4	2.5
170°-180°	91.0	0.8
0°-30°	1366.7	12.6
0°-40°	2228.6	20.5
0°-60°	3920.1	36.1
0°-90°	4977.2	45.8
90°-120°	2733.5	25.1
90°-150°	5093.9	46.9
90°-180°	5895.0	54.2
0°-180°	10871.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1773	1773	1773	1773	1773	
5°	1753	1777	1758	1761	1773	166
15°	1686	1707	1690	1698	1707	476
25°	1558	1574	1558	1560	1567	717
35°	1377	1386	1372	1377	1381	861
45°	1154	1162	1150	1152	1154	891
55°	901	906	898	894	894	805
65°	628	626	621	616	613	617
75°	340	338	333	326	324	359
85°	82	77	75	68	70	95
90°	1	3	8	7	8	6
95°	51	148	662	236	153	58
105°	207	295	1183	2247	2135	218
115°	373	446	961	1986	2331	368
125°	519	579	947	1566	1839	462
135°	625	692	939	1351	1522	484
145°	731	785	937	1162	1273	458
155°	833	861	943	1039	1080	384
165°	910	918	947	984	994	256
175°	951	951	952	959	957	90
180°	955	955	955	955	955	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1772.6	1772.6	1772.6	1772.6	1772.6
2.5°	1761.0	1781.8	1764.9	1768.8	1770.7
5°	1753.3	1776.9	1758.1	1760.8	1772.6
7.5°	1738.8	1764.3	1743.7	1748.3	1761.5
10°	1729.2	1752.8	1734.0	1736.6	1746.1
12.5°	1713.7	1737.3	1718.5	1723.1	1732.5
15°	1685.7	1706.9	1690.5	1698.0	1707.4
17.5°	1653.3	1676.0	1657.7	1664.1	1672.2
20°	1630.1	1649.0	1632.6	1635.2	1647.1
22.5°	1601.2	1620.1	1605.5	1606.2	1616.1
25°	1557.7	1574.2	1557.7	1560.3	1567.4
27.5°	1507.9	1522.1	1507.9	1510.5	1516.6
30°	1473.2	1487.3	1473.2	1475.6	1478.0
32.5°	1434.5	1446.8	1432.6	1435.2	1441.3
35°	1376.6	1386.0	1371.7	1376.7	1381.4
37.5°	1314.7	1321.8	1309.9	1312.4	1316.7
40°	1270.3	1277.4	1265.5	1267.9	1270.3
42.5°	1225.9	1231.1	1219.1	1221.6	1225.9
45°	1154.4	1161.5	1149.6	1152.0	1154.4
47.5°	1081.9	1086.2	1076.1	1074.3	1078.6
50°	1033.6	1036.0	1024.0	1024.0	1026.4
52.5°	981.5	983.8	975.7	971.9	974.2
55°	900.8	905.5	898.4	893.6	893.6
57.5°	819.7	823.9	814.8	812.4	811.9
60°	765.6	767.9	760.7	758.3	755.9
62.5°	711.5	711.9	704.7	702.2	699.9
65°	627.9	625.5	620.7	615.8	613.4
67.5°	534.2	536.6	531.8	524.1	524.1
70°	478.2	480.5	475.8	466.1	466.1
72.5°	424.1	422.7	419.7	411.9	408.1
75°	340.5	338.2	333.3	326.0	323.6
77.5°	257.0	254.6	252.1	243.0	244.9
80°	202.9	200.5	198.0	190.8	190.8
82.5°	154.6	150.3	147.8	140.6	140.6
85°	82.1	77.4	74.9	67.7	70.0
87.5°	23.4	21.9	20.9	16.8	17.0
90°	1.0	2.9	7.9	6.9	7.9
92.5°	16.7	60.8	186.9	60.8	48.7
95°	51.0	148.0	661.6	235.7	153.1
97.5°	92.7	195.2	1135.1	686.6	425.6
100°	121.7	219.6	1313.3	1172.8	777.4
102.5°	154.7	250.3	1293.7	1728.1	1339.6
105°	207.1	295.4	1182.8	2247.2	2134.9
107.5°	258.7	339.7	1074.6	2295.7	2419.1
110°	292.5	371.2	1022.8	2239.2	2468.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	324.7	401.1	991.4	2141.0	2434.8
115°	373.0	445.9	960.9	1985.7	2331.2
117.5°	419.9	488.0	949.4	1833.1	2183.9
120°	450.5	514.8	946.2	1744.1	2085.8
122.5°	478.0	540.8	946.2	1667.4	1984.5
125°	519.2	578.7	947.2	1565.9	1839.4
127.5°	554.2	614.8	946.0	1491.1	1729.1
130°	576.2	637.6	945.2	1445.8	1660.8
132.5°	595.8	658.8	942.9	1406.9	1601.9
135°	625.2	691.5	939.3	1350.6	1522.4
137.5°	656.3	721.9	937.2	1291.9	1447.2
140°	678.3	741.6	936.4	1254.8	1401.7
142.5°	700.2	759.7	936.4	1215.2	1348.3
145°	731.3	785.0	937.4	1161.7	1273.1
147.5°	763.8	808.6	938.8	1115.2	1199.3
150°	784.3	823.6	940.3	1088.2	1159.2
152.5°	804.7	839.4	941.1	1065.9	1124.7
155°	833.3	861.2	943.3	1039.4	1079.7
157.5°	859.1	879.2	945.4	1018.5	1047.7
160°	875.5	891.9	946.2	1006.6	1029.6
162.5°	889.7	902.9	946.2	997.0	1013.9
165°	909.9	918.5	947.2	983.8	994.3
167.5°	927.0	931.2	948.4	973.4	979.2
170°	936.4	938.3	949.2	967.9	969.8
172.5°	943.5	944.6	951.5	963.9	964.3
175°	951.1	951.1	952.1	958.9	957.0
177.5°	955.0	954.3	953.5	958.1	955.0
180°	955.0	955.0	955.0	955.0	955.0



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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	19.22	20.05	20.21	21.06	22.39	19.14	19.98	20.13	20.98	22.31
	3H	21.00	21.75	22.00	22.76	24.11	20.88	21.63	21.88	22.64	23.99
	4H	21.66	22.37	22.67	23.38	24.74	21.50	22.21	22.52	23.23	24.59
	6H	22.12	22.78	23.15	23.80	25.17	21.94	22.59	22.96	23.61	24.98
	8H	22.26	22.88	23.29	23.92	25.29	22.06	22.68	23.09	23.72	25.09
	12H	22.33	22.93	23.37	23.96	25.35	22.11	22.70	23.15	23.73	25.13
4H	2H	19.77	20.48	20.79	21.49	22.85	19.71	20.42	20.73	21.43	22.79
	3H	21.75	22.35	22.78	23.39	24.76	21.64	22.24	22.67	23.28	24.65
	4H	22.54	23.08	23.58	24.12	25.51	22.40	22.94	23.43	23.98	25.37
	6H	23.13	23.60	24.18	24.66	26.05	22.95	23.42	24.00	24.48	25.87
	8H	23.32	23.75	24.36	24.81	26.21	23.11	23.55	24.16	24.60	26.01
	12H	23.42	23.81	24.48	24.88	26.29	23.19	23.58	24.26	24.65	26.06
8H	4H	22.79	23.22	23.83	24.28	25.68	22.66	23.10	23.71	24.15	25.55
	6H	23.50	23.86	24.57	24.96	26.36	23.34	23.70	24.41	24.79	26.19
	8H	23.77	24.09	24.85	25.16	26.59	23.58	23.89	24.66	24.97	26.39
	12H	23.94	24.22	25.02	25.29	26.75	23.71	23.99	24.79	25.06	26.52
12H	4H	22.78	23.17	23.84	24.24	25.65	22.66	23.05	23.72	24.12	25.53
	6H	23.55	23.86	24.62	24.94	26.36	23.39	23.70	24.47	24.78	26.20
	8H	23.84	24.12	24.92	25.19	26.65	23.65	23.93	24.73	25.00	26.47