

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: P855410

Luminaire Tested: SQ2-FB-150U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855410
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-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

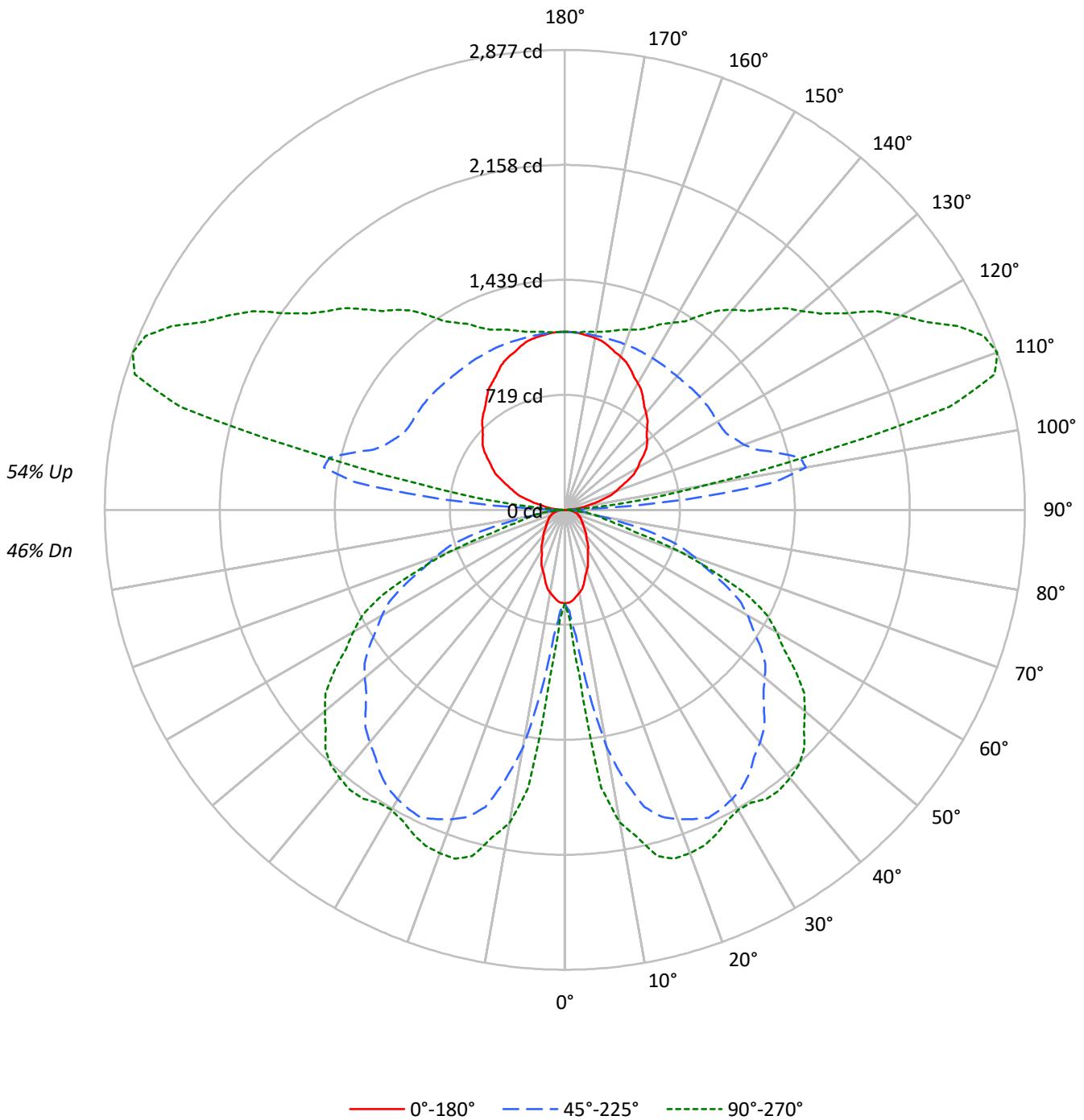
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12655.7 lumens
Efficiency: N/A
Efficacy: 119.6 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°	9452	9452	9452
5°	9214	12772	16741
10°	8629	24733	32577
15°	7809	32179	37496
20°	6916	35398	39268
25°	6116	37857	39913
30°	5407	38988	40404
35°	4827	39665	43438
40°	4390	40042	46152
45°	4048	40231	48327
50°	3818	41003	49205
55°	3724	42069	49596
60°	3817	42625	49351
65°	3981	42044	47958
70°	4121	40655	36269
75°	4566	36519	20012
80°	4714	18847	18587
85°	4687	13042	7818

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 50045 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.1	0.8
10°-20°	447.7	3.5
20°-30°	787.7	6.2
30°-40°	1019.6	8.1
40°-50°	1124.5	8.9
50°-60°	1049.9	8.3
60°-70°	811.5	6.4
70°-80°	374.3	3.0
80°-90°	72.7	0.6
90°-100°	424.1	3.4
100°-110°	1388.7	11.0
110°-120°	1372.9	10.8
120°-130°	1122.3	8.9
130°-140°	915.8	7.2
140°-150°	712.7	5.6
150°-160°	513.2	4.1
160°-170°	314.0	2.5
170°-180°	106.1	0.8
0°-30°	1333.5	10.5
0°-40°	2353.1	18.6
0°-60°	4527.5	35.8
0°-90°	5786.0	45.7
90°-120°	3185.7	25.2
90°-150°	5936.5	46.9
90°-180°	6870.0	54.3
0°-180°	12655.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	568	651	788	961	1033	53
15°	467	921	1925	2155	2243	130
25°	343	1238	2125	2218	2240	158
35°	245	1194	2012	2083	2204	154
45°	177	915	1762	2023	2116	137
55°	132	545	1494	1718	1762	119
65°	104	308	1100	1233	1255	102
75°	73	189	585	315	321	75
85°	25	56	70	48	42	26
90°	1	3	9	8	9	4
95°	59	172	771	275	178	67
105°	241	344	1378	2619	2488	254
115°	435	520	1120	2314	2717	429
125°	605	674	1104	1825	2144	538
135°	729	806	1095	1574	1774	564
145°	852	915	1092	1354	1484	534
155°	971	1004	1099	1211	1258	447
165°	1060	1070	1104	1146	1159	299
175°	1108	1108	1110	1118	1115	105
180°	1113	1113	1113	1113	1113	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	585.4	585.4	585.4	585.4	585.4
2.5°	581.0	605.1	632.7	664.5	677.7
5°	568.5	651.1	788.0	961.3	1032.9
7.5°	546.6	714.4	1146.1	1609.8	1752.9
10°	526.3	760.2	1508.6	1910.0	1987.0
12.5°	503.8	821.4	1736.0	2018.1	2097.4
15°	467.2	921.2	1925.1	2155.1	2243.2
17.5°	429.5	1033.8	2012.9	2239.8	2287.7
20°	402.5	1112.5	2060.2	2255.1	2285.4
22.5°	377.7	1171.3	2094.0	2241.6	2274.2
25°	343.3	1237.8	2125.0	2218.3	2240.4
27.5°	310.1	1255.1	2111.5	2172.8	2194.2
30°	290.0	1250.4	2091.2	2136.9	2167.2
32.5°	271.9	1236.7	2061.9	2106.2	2171.7
35°	244.9	1194.3	2012.4	2082.7	2203.8
37.5°	221.8	1126.1	1947.0	2091.0	2207.7
40°	208.3	1075.2	1899.8	2090.6	2189.7
42.5°	194.7	1015.4	1845.8	2068.1	2167.2
45°	177.3	914.8	1761.9	2022.9	2116.5
47.5°	160.9	801.7	1684.2	1960.4	2028.7
50°	152.0	724.4	1632.4	1903.9	1958.9
52.5°	143.0	649.4	1580.6	1836.2	1886.9
55°	132.3	545.1	1494.5	1717.8	1761.9
57.5°	122.7	455.7	1396.6	1587.0	1622.8
60°	118.2	407.2	1320.0	1492.5	1528.3
62.5°	111.4	363.0	1234.4	1393.4	1426.9
65°	104.2	307.8	1100.5	1233.2	1255.3
67.5°	94.0	266.9	958.1	1039.3	998.0
70°	87.3	246.8	861.2	886.6	768.3
72.5°	82.7	224.8	755.4	688.4	464.4
75°	73.2	188.8	585.4	315.4	320.8
77.5°	59.7	146.0	385.0	242.2	247.1
80°	50.7	119.5	202.7	197.1	199.9
82.5°	41.6	92.9	139.6	145.1	141.2
85°	25.3	55.6	70.4	47.7	42.2
87.5°	9.2	20.7	13.1	12.8	13.1
90°	1.2	3.4	9.2	8.0	9.2
92.5°	19.5	70.9	217.8	70.9	56.8
95°	59.4	172.5	771.0	274.7	178.4
97.5°	108.0	227.5	1322.8	800.2	496.0
100°	141.8	255.9	1530.5	1366.8	906.0
102.5°	180.3	291.7	1507.7	2013.9	1561.2
105°	241.4	344.3	1378.4	2618.9	2488.0
107.5°	301.5	395.9	1252.3	2675.4	2819.2
110°	340.9	432.6	1192.0	2609.6	2876.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	378.4	467.4	1155.4	2495.1	2837.5
115°	434.7	519.7	1119.8	2314.1	2716.8
117.5°	489.4	568.7	1106.4	2136.3	2545.1
120°	525.0	599.9	1102.7	2032.6	2430.8
122.5°	557.1	630.2	1102.7	1943.2	2312.7
125°	605.1	674.4	1103.9	1824.9	2143.6
127.5°	645.9	716.5	1102.5	1737.7	2015.1
130°	671.5	743.1	1101.5	1684.9	1935.5
132.5°	694.3	767.8	1098.9	1639.6	1866.9
135°	728.6	805.9	1094.7	1574.0	1774.2
137.5°	764.9	841.3	1092.2	1505.6	1686.6
140°	790.5	864.3	1091.3	1462.3	1633.5
142.5°	816.0	885.4	1091.3	1416.2	1571.3
145°	852.3	914.8	1092.4	1353.8	1483.7
147.5°	890.1	942.3	1094.1	1299.7	1397.7
150°	914.0	959.8	1095.8	1268.2	1350.9
152.5°	937.8	978.2	1096.8	1242.2	1310.7
155°	971.1	1003.6	1099.3	1211.3	1258.3
157.5°	1001.2	1024.6	1101.8	1187.0	1221.0
160°	1020.3	1039.4	1102.7	1173.1	1199.9
162.5°	1036.9	1052.2	1102.7	1161.9	1181.6
165°	1060.4	1070.4	1103.9	1146.5	1158.8
167.5°	1080.3	1085.2	1105.3	1134.4	1141.2
170°	1091.3	1093.5	1106.2	1128.0	1130.2
172.5°	1099.6	1100.8	1108.9	1123.3	1123.8
175°	1108.4	1108.4	1109.6	1117.5	1115.3
177.5°	1113.0	1112.1	1111.2	1116.6	1113.0
180°	1113.0	1113.0	1113.0	1113.0	1113.0

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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	14.46	15.31	15.45	16.31	17.64	23.20	24.05	24.19	25.05	26.38
	3H	15.19	15.95	16.19	16.96	18.31	24.82	25.58	25.82	26.59	27.94
	4H	15.49	16.21	16.50	17.23	18.59	25.00	25.72	26.01	26.74	28.09
	6H	15.71	16.37	16.73	17.39	18.76	25.08	25.75	26.11	26.77	28.14
	8H	15.77	16.40	16.79	17.43	18.80	25.09	25.72	26.12	26.76	28.12
	12H	15.79	16.39	16.83	17.42	18.82	25.06	25.66	26.09	26.69	28.08
4H	2H	18.86	19.58	19.88	20.60	21.95	23.64	24.36	24.66	25.38	26.73
	3H	19.79	20.39	20.82	21.44	22.81	25.46	26.06	26.49	27.11	28.48
	4H	20.07	20.62	21.11	21.66	23.05	25.70	26.25	26.74	27.29	28.68
	6H	20.20	20.68	21.25	21.74	23.13	25.85	26.32	26.89	27.38	28.77
	8H	20.23	20.67	21.27	21.72	23.12	25.87	26.31	26.92	27.36	28.77
	12H	20.22	20.61	21.28	21.68	23.09	25.84	26.24	26.91	27.31	28.72
8H	4H	21.25	21.69	22.29	22.74	24.15	25.82	26.26	26.86	27.31	28.72
	6H	21.48	21.85	22.55	22.94	24.34	26.02	26.39	27.09	27.48	28.88
	8H	21.56	21.87	22.63	22.95	24.37	26.08	26.40	27.16	27.48	28.90
	12H	21.58	21.86	22.66	22.93	24.40	26.08	26.36	27.16	27.43	28.89
12H	4H	21.26	21.66	22.33	22.73	24.14	25.77	26.17	26.83	27.23	28.65
	6H	21.58	21.90	22.66	22.98	24.40	26.01	26.32	27.08	27.40	28.83
	8H	21.68	21.96	22.76	23.04	24.50	26.07	26.35	27.15	27.43	28.89