

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: P855418

Luminaire Tested: SQ2-FB-100U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855418
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-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

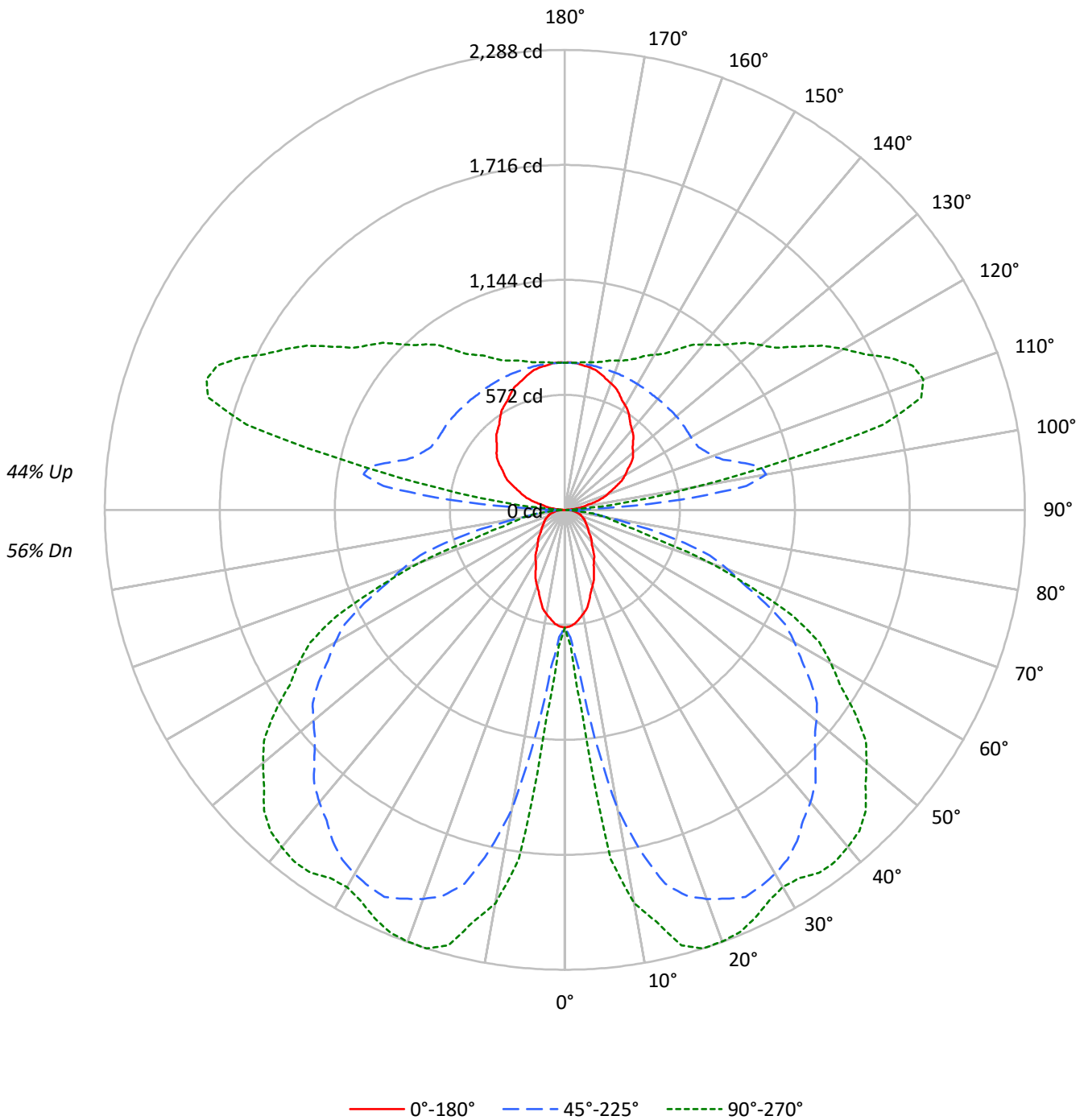
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10347.4 lumens
Efficiency: N/A
Efficacy: 126.5 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°	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	0.9
10°-20°	447.7	4.3
20°-30°	787.7	7.6
30°-40°	1019.6	9.9
40°-50°	1124.5	10.9
50°-60°	1049.9	10.1
60°-70°	811.5	7.8
70°-80°	374.3	3.6
80°-90°	72.8	0.7
90°-100°	306.1	3.0
100°-110°	925.7	8.9
110°-120°	903.7	8.7
120°-130°	738.5	7.1
130°-140°	602.8	5.8
140°-150°	469.2	4.5
150°-160°	338.3	3.3
160°-170°	207.1	2.0
170°-180°	69.9	0.7
0°-30°	1333.5	12.9
0°-40°	2353.1	22.7
0°-60°	4527.5	43.8
0°-90°	5786.1	55.9
90°-120°	2135.5	20.6
90°-150°	3946.0	38.1
90°-180°	4561.0	44.1
0°-180°	10347.4	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°	0	2	14	8	7	3
95°	38	120	578	213	135	45
105°	161	226	909	1726	1641	169
115°	286	342	735	1521	1787	283
125°	400	444	725	1201	1414	356
135°	480	530	720	1036	1166	372
145°	560	602	720	891	974	351
155°	638	660	725	799	830	294
165°	698	706	728	756	765	197
175°	731	731	732	738	735	69
180°	733	733	733	733	733	



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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°	9.0	20.5	14.0	12.8	12.6
90°	0.0	2.2	13.8	8.0	6.9
92.5°	12.9	52.1	186.8	62.0	44.6
95°	38.0	120.0	577.6	213.4	134.6
97.5°	73.4	152.8	910.3	602.4	366.8
100°	95.4	173.1	1017.0	983.2	660.4
102.5°	120.4	195.3	995.0	1379.1	1099.4
105°	161.1	226.3	908.9	1726.2	1640.7
107.5°	199.7	262.1	826.2	1760.6	1859.5
110°	225.5	285.2	784.7	1717.2	1897.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	250.3	308.1	759.8	1644.7	1872.5
115°	286.5	341.6	735.3	1521.3	1786.8
117.5°	322.3	374.6	726.5	1405.7	1677.5
120°	346.4	395.8	723.7	1338.2	1599.3
122.5°	368.4	415.2	723.7	1278.9	1520.1
125°	400.4	444.3	724.9	1201.4	1414.0
127.5°	426.4	471.9	723.7	1142.9	1324.2
130°	443.0	490.2	723.7	1109.5	1273.7
132.5°	457.7	505.8	722.8	1078.8	1230.4
135°	479.8	530.4	720.2	1036.2	1165.5
137.5°	504.4	552.5	720.2	990.6	1110.5
140°	520.0	567.3	720.2	961.0	1074.6
142.5°	535.7	581.2	719.3	934.0	1033.2
145°	560.3	601.9	720.2	891.3	974.5
147.5°	584.9	620.2	721.6	856.1	920.0
150°	600.6	633.2	722.5	836.5	890.5
152.5°	615.3	644.4	723.5	819.7	863.8
155°	638.5	660.0	724.9	799.2	829.5
157.5°	658.8	676.2	726.3	784.0	805.2
160°	670.8	685.4	727.1	774.6	790.4
162.5°	682.7	693.8	728.0	766.4	779.4
165°	698.4	706.2	728.3	756.1	765.1
167.5°	711.7	715.8	729.7	748.2	752.0
170°	719.1	721.4	730.6	744.5	745.5
172.5°	723.7	725.0	730.6	740.7	741.0
175°	730.6	730.6	731.8	737.5	735.3
177.5°	733.9	732.9	732.0	734.7	732.9
180°	732.9	732.9	732.9	732.9	732.9

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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	15.39	16.34	16.29	17.26	18.44	24.13	25.08	25.03	26.00	27.18
	3H	16.13	16.98	17.04	17.91	19.12	25.76	26.61	26.67	27.54	28.75
	4H	16.43	17.24	17.36	18.18	19.39	25.94	26.75	26.87	27.68	28.90
	6H	16.65	17.40	17.59	18.34	19.57	26.03	26.77	26.97	27.72	28.95
	8H	16.72	17.42	17.66	18.38	19.61	26.04	26.75	26.98	27.71	28.93
	12H	16.75	17.42	17.70	18.37	19.63	26.01	26.69	26.96	27.64	28.89
4H	2H	19.80	20.61	20.73	21.54	22.76	24.58	25.39	25.51	26.32	27.54
	3H	20.74	21.41	21.69	22.38	23.61	26.42	27.09	27.36	28.05	29.28
	4H	21.03	21.64	21.98	22.60	23.86	26.66	27.27	27.61	28.23	29.49
	6H	21.17	21.69	22.13	22.68	23.93	26.81	27.34	27.78	28.32	29.58
	8H	21.19	21.68	22.16	22.66	23.93	26.84	27.33	27.80	28.31	29.58
	12H	21.19	21.63	22.17	22.63	23.90	26.81	27.26	27.80	28.25	29.53
8H	4H	22.21	22.70	23.18	23.68	24.95	26.78	27.28	27.75	28.25	29.52
	6H	22.45	22.86	23.45	23.88	25.15	26.99	27.40	27.99	28.42	29.69
	8H	22.53	22.88	23.53	23.89	25.18	27.06	27.41	28.06	28.42	29.71
	12H	22.56	22.87	23.56	23.88	25.21	27.05	27.37	28.06	28.37	29.70
12H	4H	22.23	22.68	23.22	23.67	24.95	26.74	27.18	27.73	28.18	29.45
	6H	22.55	22.91	23.55	23.92	25.20	26.98	27.34	27.98	28.34	29.63
	8H	22.66	22.97	23.67	23.98	25.31	27.05	27.36	28.06	28.37	29.70