

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: P855414

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855414
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-125U-125D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

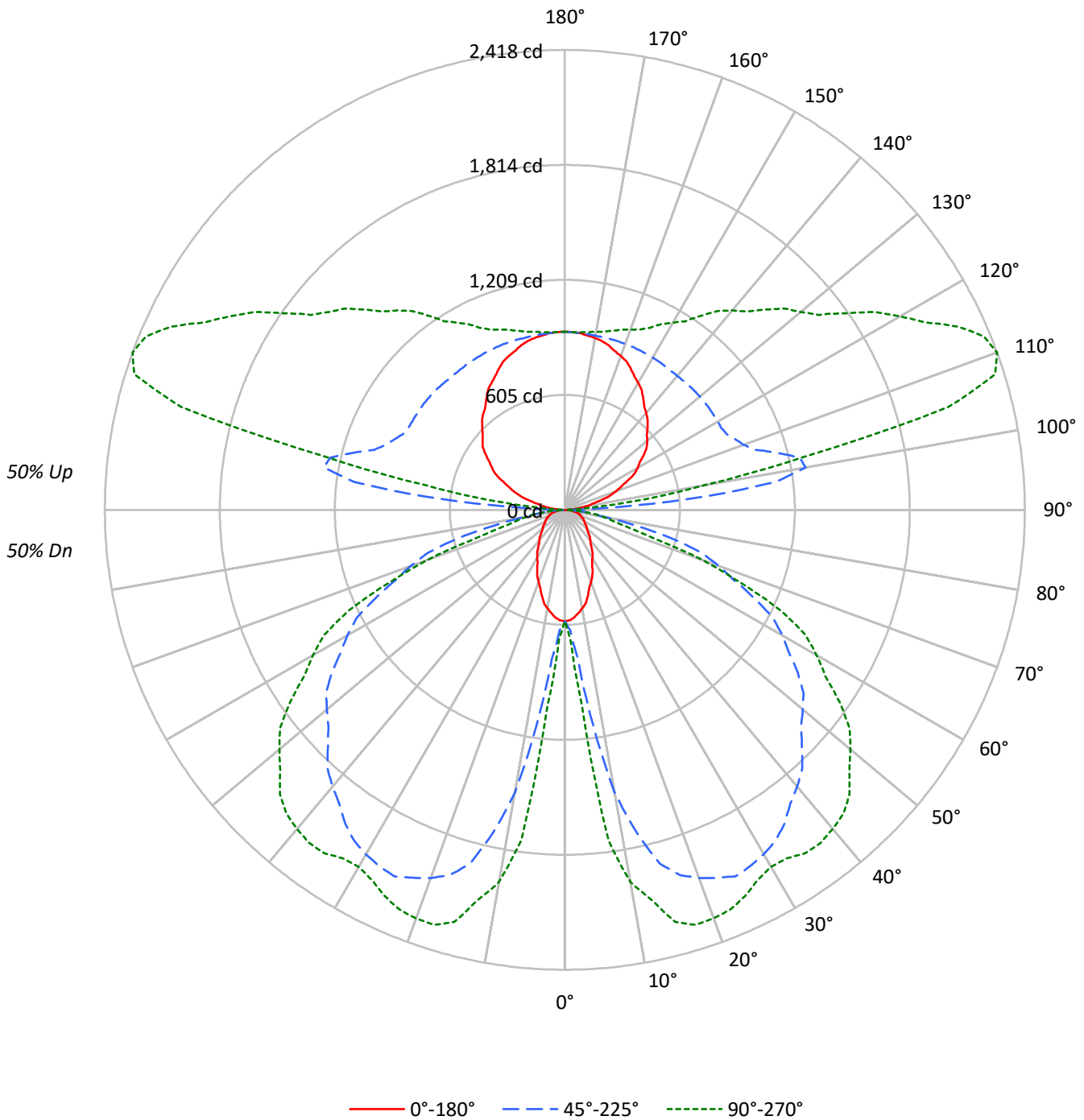
Lumens per Lamp: N/A
Luminaire Lumens: 11557.9 lumens
Efficiency: N/A
Efficacy: 124.1 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 93.1
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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	98	93	89	86	90	86	83	80	73	70	68	61	59	57	49	48	47	42
2	89	81	75	69	81	75	69	65	63	59	56	53	50	47	43	41	39	34
3	80	71	63	57	74	65	59	54	55	50	46	46	43	39	38	35	33	29
4	73	62	54	48	67	58	50	45	49	43	39	41	37	33	33	30	28	24
5	67	55	47	41	61	51	44	38	43	38	33	36	32	28	30	26	24	20
6	62	49	41	35	56	46	38	33	39	33	29	33	28	25	27	23	21	18
7	57	44	36	30	52	41	34	28	35	29	25	29	25	21	24	21	18	15
8	52	40	32	26	48	37	30	25	32	26	22	27	22	19	22	18	16	13
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	17	14	12
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	13	11

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	3.9
20°-30°	787.7	6.8
30°-40°	1019.6	8.8
40°-50°	1124.5	9.7
50°-60°	1049.9	9.1
60°-70°	811.5	7.0
70°-80°	374.3	3.2
80°-90°	72.5	0.6
90°-100°	357.9	3.1
100°-110°	1165.1	10.1
110°-120°	1152.5	10.0
120°-130°	941.8	8.1
130°-140°	769.8	6.7
140°-150°	599.6	5.2
150°-160°	432.2	3.7
160°-170°	264.1	2.3
170°-180°	89.1	0.8
0°-30°	1333.5	11.5
0°-40°	2353.1	20.4
0°-60°	4527.5	39.2
0°-90°	5785.8	50.1
90°-120°	2675.5	23.1
90°-150°	4986.7	43.1
90°-180°	5772.0	49.9
0°-180°	11557.9	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	3	8	7	7	3
95°	48	147	656	234	144	56
105°	198	286	1154	2204	2088	211
115°	366	437	940	1938	2280	362
125°	509	567	928	1530	1803	453
135°	614	679	923	1320	1489	475
145°	718	771	921	1137	1245	450
155°	819	846	926	1018	1056	377
165°	894	902	929	963	975	252
175°	932	932	932	939	937	88
180°	936	936	936	936	936	



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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	20.7	12.8	12.6	12.6
90°	0.0	3.4	8.0	6.9	6.9
92.5°	16.5	59.6	190.3	62.7	48.4
95°	48.4	147.3	655.9	233.9	143.8
97.5°	90.9	191.7	1113.2	678.0	413.8
100°	118.5	217.6	1285.3	1146.2	743.4
102.5°	149.9	245.2	1264.2	1695.7	1289.3
105°	197.9	285.6	1154.2	2204.5	2087.5
107.5°	250.0	332.5	1049.7	2248.5	2372.5
110°	287.7	363.0	1000.0	2193.8	2417.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	319.0	393.4	968.7	2094.9	2383.6
115°	365.9	436.8	940.1	1937.6	2279.6
117.5°	414.3	478.2	929.1	1793.4	2134.0
120°	441.9	504.9	926.4	1704.9	2034.4
122.5°	468.6	530.7	927.3	1627.9	1935.0
125°	508.6	567.1	927.5	1529.8	1803.2
127.5°	543.0	602.7	927.3	1456.3	1684.2
130°	565.0	625.8	926.4	1414.2	1617.9
132.5°	584.3	647.8	925.4	1375.3	1566.4
135°	614.5	678.6	922.9	1320.3	1489.0
137.5°	644.0	708.6	920.3	1264.3	1414.2
140°	665.1	727.0	919.4	1226.5	1368.2
142.5°	685.4	744.6	919.4	1190.2	1316.7
145°	718.0	770.9	920.6	1137.1	1245.1
147.5°	749.8	795.7	922.2	1091.9	1175.3
150°	771.0	811.5	924.0	1064.8	1135.8
152.5°	792.1	825.5	925.0	1044.3	1100.8
155°	819.3	846.3	926.4	1018.1	1056.3
157.5°	845.1	864.5	927.8	998.7	1025.6
160°	860.8	876.5	928.6	986.6	1008.1
162.5°	874.5	886.8	928.6	976.4	992.3
165°	894.1	902.0	928.6	963.4	974.6
167.5°	908.0	912.9	928.8	953.6	959.5
170°	917.2	919.4	929.8	947.1	949.3
172.5°	923.6	925.0	931.6	943.4	942.9
175°	932.1	932.1	932.1	939.0	936.7
177.5°	935.6	934.7	933.7	938.3	934.7
180°	935.6	935.6	935.6	935.6	935.6



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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	14.87	15.76	15.82	16.73	18.00	23.61	24.50	24.56	25.47	26.74
	3H	15.61	16.40	16.57	17.38	18.67	25.23	26.03	26.20	27.01	28.30
	4H	15.91	16.66	16.88	17.65	18.95	25.42	26.17	26.39	27.15	28.45
	6H	16.13	16.82	17.11	17.81	19.12	25.50	26.20	26.49	27.19	28.50
	8H	16.19	16.85	17.18	17.85	19.16	25.51	26.17	26.50	27.18	28.49
	12H	16.21	16.84	17.21	17.84	19.18	25.48	26.11	26.48	27.11	28.44
4H	2H	19.28	20.03	20.26	21.01	22.31	24.06	24.81	25.04	25.79	27.09
	3H	20.21	20.84	21.20	21.85	23.17	25.88	26.51	26.88	27.53	28.84
	4H	20.50	21.07	21.50	22.08	23.41	26.12	26.70	27.13	27.70	29.04
	6H	20.63	21.12	21.64	22.15	23.49	26.27	26.77	27.28	27.80	29.13
	8H	20.65	21.11	21.67	22.14	23.48	26.30	26.76	27.31	27.78	29.13
	12H	20.64	21.06	21.68	22.10	23.45	26.27	26.69	27.31	27.73	29.08
8H	4H	21.67	22.13	22.69	23.16	24.51	26.24	26.70	27.26	27.73	29.08
	6H	21.91	22.29	22.95	23.36	24.70	26.45	26.83	27.49	27.90	29.24
	8H	21.98	22.32	23.03	23.37	24.73	26.51	26.85	27.56	27.90	29.26
	12H	22.01	22.31	23.06	23.35	24.76	26.51	26.80	27.56	27.85	29.25
12H	4H	21.69	22.11	22.73	23.15	24.50	26.20	26.61	27.23	27.65	29.01
	6H	22.01	22.34	23.05	23.39	24.76	26.43	26.77	27.48	27.82	29.19
	8H	22.11	22.41	23.16	23.45	24.86	26.50	26.80	27.55	27.84	29.25