

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: P855189

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855189
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-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

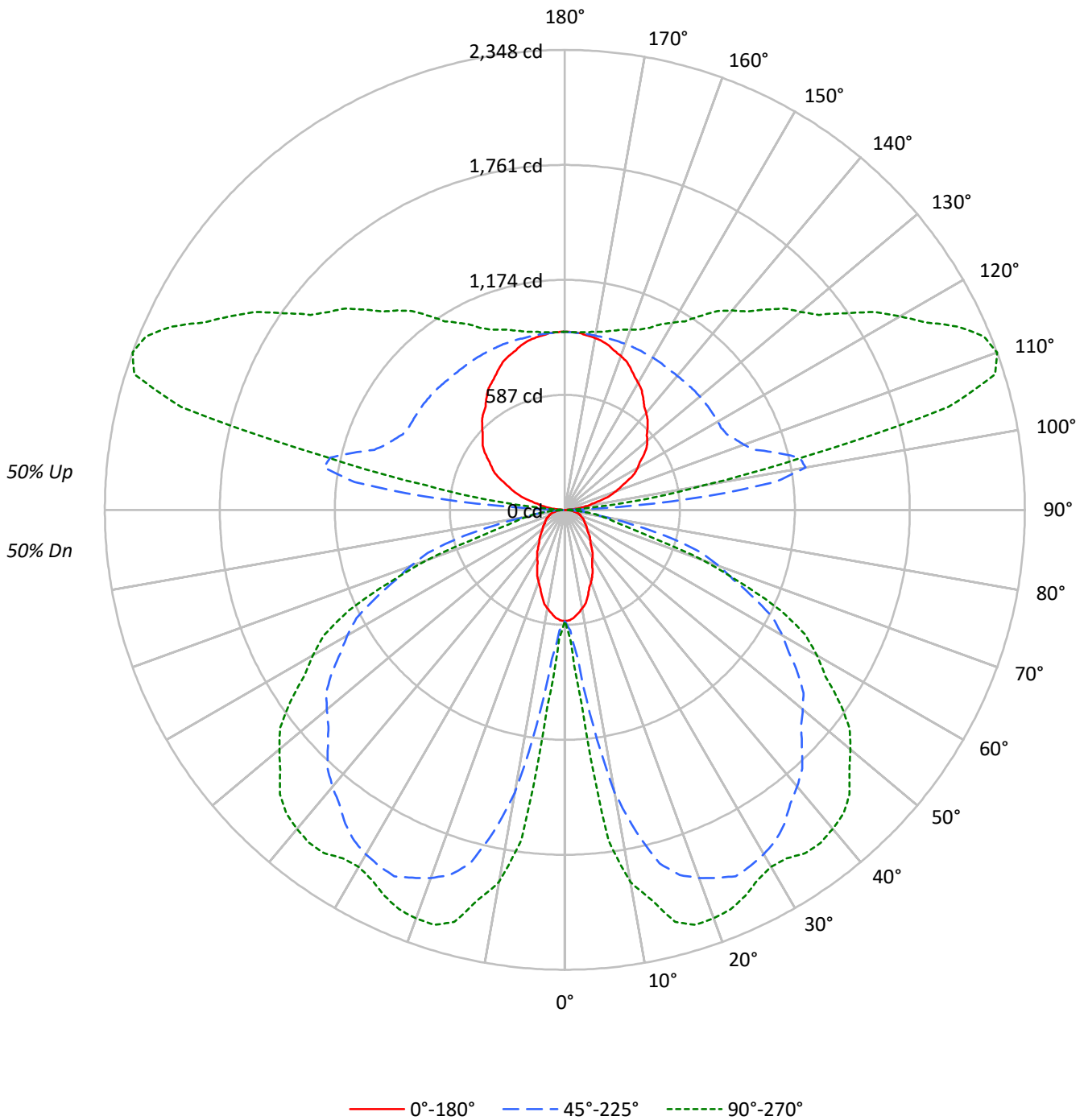
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11223.4 lumens
Efficiency: N/A
Efficacy: 120.6 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): 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

TEST NUMBER: P855189
CATALOG NUMBER: SQ2-FB-125U-125D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855189

CATALOG NUMBER: SQ2-FB-125U-125D-835-UNV-STD-W-4

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°	9177	9177	9177
5°	8947	12402	16256
10°	8379	24017	31634
15°	7584	31248	36409
20°	6716	34374	38130
25°	5940	36761	38756
30°	5250	37860	39234
35°	4687	38518	42180
40°	4262	38883	44816
45°	3930	39064	46928
50°	3707	39815	47780
55°	3614	40850	48158
60°	3707	41391	47924
65°	3866	40825	46567
70°	4003	39479	35221
75°	4435	35458	19432
80°	4575	18299	18047
85°	4557	12671	7595

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 48597 cd/sqm



TEST NUMBER: P855189

CATALOG NUMBER: SQ2-FB-125U-125D-835-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.2	0.8
10°-20°	434.7	3.9
20°-30°	764.9	6.8
30°-40°	990.1	8.8
40°-50°	1092.0	9.7
50°-60°	1019.5	9.1
60°-70°	788.0	7.0
70°-80°	363.5	3.2
80°-90°	70.4	0.6
90°-100°	347.5	3.1
100°-110°	1131.4	10.1
110°-120°	1119.1	10.0
120°-130°	914.6	8.1
130°-140°	747.5	6.7
140°-150°	582.2	5.2
150°-160°	419.7	3.7
160°-170°	256.5	2.3
170°-180°	86.5	0.8
0°-30°	1294.9	11.5
0°-40°	2285.0	20.4
0°-60°	4396.5	39.2
0°-90°	5618.3	50.1
90°-120°	2598.0	23.1
90°-150°	4842.3	43.1
90°-180°	5605.0	49.9
0°-180°	11223.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	568	568	568	568	568	
5°	552	632	765	934	1003	51
15°	454	895	1869	2093	2178	126
25°	333	1202	2064	2154	2176	153
35°	238	1160	1954	2022	2140	150
45°	172	888	1711	1964	2055	133
55°	128	529	1451	1668	1711	116
65°	101	299	1069	1198	1219	99
75°	71	183	568	306	312	73
85°	25	54	68	46	41	26
90°	0	3	8	7	7	3
95°	47	143	637	227	140	55
105°	192	277	1121	2141	2027	205
115°	355	424	913	1882	2214	352
125°	494	551	901	1486	1751	440
135°	597	659	896	1282	1446	461
145°	697	749	894	1104	1209	436
155°	796	822	900	989	1026	366
165°	868	876	902	936	946	245
175°	905	905	905	912	910	86
180°	908	908	908	908	908	



TEST NUMBER: P855189

CATALOG NUMBER: SQ2-FB-125U-125D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	568.4	568.4	568.4	568.4	568.4
2.5°	564.1	587.6	614.4	645.3	658.1
5°	552.0	632.3	765.2	933.5	1003.0
7.5°	530.8	693.7	1112.9	1563.2	1702.1
10°	511.1	738.2	1464.9	1854.7	1929.5
12.5°	489.2	797.6	1685.7	1959.7	2036.7
15°	453.7	894.6	1869.4	2092.7	2178.2
17.5°	417.0	1003.9	1954.6	2174.9	2221.5
20°	390.9	1080.3	2000.6	2189.8	2219.2
22.5°	366.8	1137.4	2033.4	2176.8	2208.3
25°	333.4	1201.9	2063.5	2154.1	2175.5
27.5°	301.1	1218.8	2050.3	2109.9	2130.7
30°	281.6	1214.2	2030.7	2075.0	2104.4
32.5°	264.0	1200.9	2002.3	2045.3	2108.9
35°	237.8	1159.7	1954.2	2022.4	2140.0
37.5°	215.4	1093.5	1890.7	2030.4	2143.8
40°	202.2	1044.1	1844.8	2030.1	2126.3
42.5°	189.1	986.0	1792.3	2008.3	2104.4
45°	172.1	888.4	1710.8	1964.3	2055.2
47.5°	156.3	778.5	1635.5	1903.7	1970.0
50°	147.6	703.4	1585.1	1848.8	1902.2
52.5°	138.9	630.6	1534.9	1783.0	1832.3
55°	128.4	529.3	1451.2	1668.1	1710.8
57.5°	119.2	442.5	1356.2	1541.1	1575.8
60°	114.8	395.4	1281.8	1449.3	1484.1
62.5°	108.2	352.5	1198.7	1353.0	1385.6
65°	101.2	298.9	1068.6	1197.5	1218.9
67.5°	91.3	259.2	930.3	1009.2	969.2
70°	84.8	239.7	836.3	861.0	746.1
72.5°	80.3	218.3	733.5	668.5	451.0
75°	71.1	183.3	568.4	306.2	311.5
77.5°	57.9	141.8	373.9	235.2	239.9
80°	49.2	116.0	196.8	191.4	194.1
82.5°	40.4	90.2	135.6	140.9	137.2
85°	24.6	54.0	68.4	46.3	41.0
87.5°	8.7	20.1	12.4	12.2	12.2
90°	0.0	3.3	7.8	6.7	6.7
92.5°	16.1	57.8	184.8	60.9	47.0
95°	47.0	143.0	636.9	227.1	139.6
97.5°	88.3	186.2	1081.0	658.4	401.9
100°	115.1	211.3	1248.1	1113.0	721.9
102.5°	145.5	238.1	1227.6	1646.6	1252.0
105°	192.2	277.4	1120.8	2140.7	2027.0
107.5°	242.7	322.9	1019.3	2183.4	2303.8
110°	279.4	352.5	971.1	2130.2	2347.7



TEST NUMBER: P855189

CATALOG NUMBER: SQ2-FB-125U-125D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	309.7	382.0	940.6	2034.3	2314.6
115°	355.3	424.1	912.9	1881.5	2213.6
117.5°	402.3	464.3	902.2	1741.5	2072.2
120°	429.1	490.2	899.6	1655.5	1975.5
122.5°	455.0	515.4	900.5	1580.8	1879.0
125°	493.9	550.7	900.7	1485.5	1751.0
127.5°	527.2	585.3	900.5	1414.1	1635.5
130°	548.6	607.7	899.6	1373.3	1571.1
132.5°	567.4	629.1	898.7	1335.5	1521.1
135°	596.7	659.0	896.2	1282.1	1445.9
137.5°	625.4	688.1	893.7	1227.7	1373.3
140°	645.8	705.9	892.8	1191.0	1328.6
142.5°	665.5	723.0	892.8	1155.8	1278.6
145°	697.2	748.6	893.9	1104.2	1209.1
147.5°	728.1	772.7	895.5	1060.3	1141.3
150°	748.7	788.0	897.3	1034.0	1102.9
152.5°	769.2	801.6	898.2	1014.1	1069.0
155°	795.6	821.8	899.6	988.6	1025.7
157.5°	820.7	839.5	900.9	969.8	995.9
160°	835.8	851.1	901.7	958.1	978.9
162.5°	849.2	861.1	901.7	948.1	963.6
165°	868.2	875.9	901.7	935.5	946.4
167.5°	881.7	886.4	901.9	926.0	931.7
170°	890.6	892.8	902.8	919.7	921.9
172.5°	896.8	898.2	904.7	916.1	915.6
175°	905.1	905.1	905.1	911.8	909.6
177.5°	908.5	907.6	906.7	911.1	907.6
180°	908.5	908.5	908.5	908.5	908.5



TEST NUMBER: P855189

CATALOG NUMBER: SQ2-FB-125U-125D-835-UNV-STD-W-4

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	14.77	15.66	15.72	16.63	17.90	23.51	24.40	24.46	25.37	26.63
	3H	15.50	16.30	16.47	17.28	18.57	25.13	25.93	26.09	26.91	28.20
	4H	15.81	16.56	16.78	17.54	18.84	25.31	26.07	26.29	27.05	28.35
	6H	16.02	16.72	17.01	17.71	19.02	25.40	26.10	26.39	27.08	28.40
	8H	16.08	16.74	17.08	17.75	19.06	25.41	26.07	26.40	27.07	28.38
	12H	16.11	16.74	17.11	17.74	19.08	25.38	26.01	26.38	27.01	28.34
4H	2H	19.17	19.93	20.16	20.91	22.21	23.95	24.71	24.94	25.69	26.99
	3H	20.11	20.74	21.10	21.75	23.06	25.78	26.41	26.77	27.42	28.74
	4H	20.39	20.97	21.40	21.97	23.31	26.02	26.60	27.02	27.60	28.94
	6H	20.53	21.02	21.54	22.05	23.38	26.17	26.66	27.18	27.69	29.03
	8H	20.55	21.01	21.56	22.03	23.38	26.19	26.66	27.21	27.68	29.03
	12H	20.54	20.96	21.58	22.00	23.35	26.17	26.59	27.20	27.62	28.98
8H	4H	21.57	22.03	22.59	23.06	24.40	26.14	26.60	27.16	27.63	28.98
	6H	21.81	22.19	22.85	23.25	24.60	26.35	26.73	27.39	27.79	29.14
	8H	21.88	22.22	22.93	23.27	24.63	26.41	26.74	27.46	27.80	29.16
	12H	21.91	22.20	22.96	23.25	24.66	26.40	26.70	27.46	27.74	29.15
12H	4H	21.59	22.01	22.62	23.04	24.40	26.09	26.51	27.13	27.55	28.90
	6H	21.90	22.24	22.95	23.29	24.66	26.33	26.67	27.38	27.72	29.08
	8H	22.01	22.30	23.06	23.35	24.76	26.40	26.69	27.45	27.74	29.15