

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: P853724

Luminaire Tested: SQ2-F-125U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853724
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-125U-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

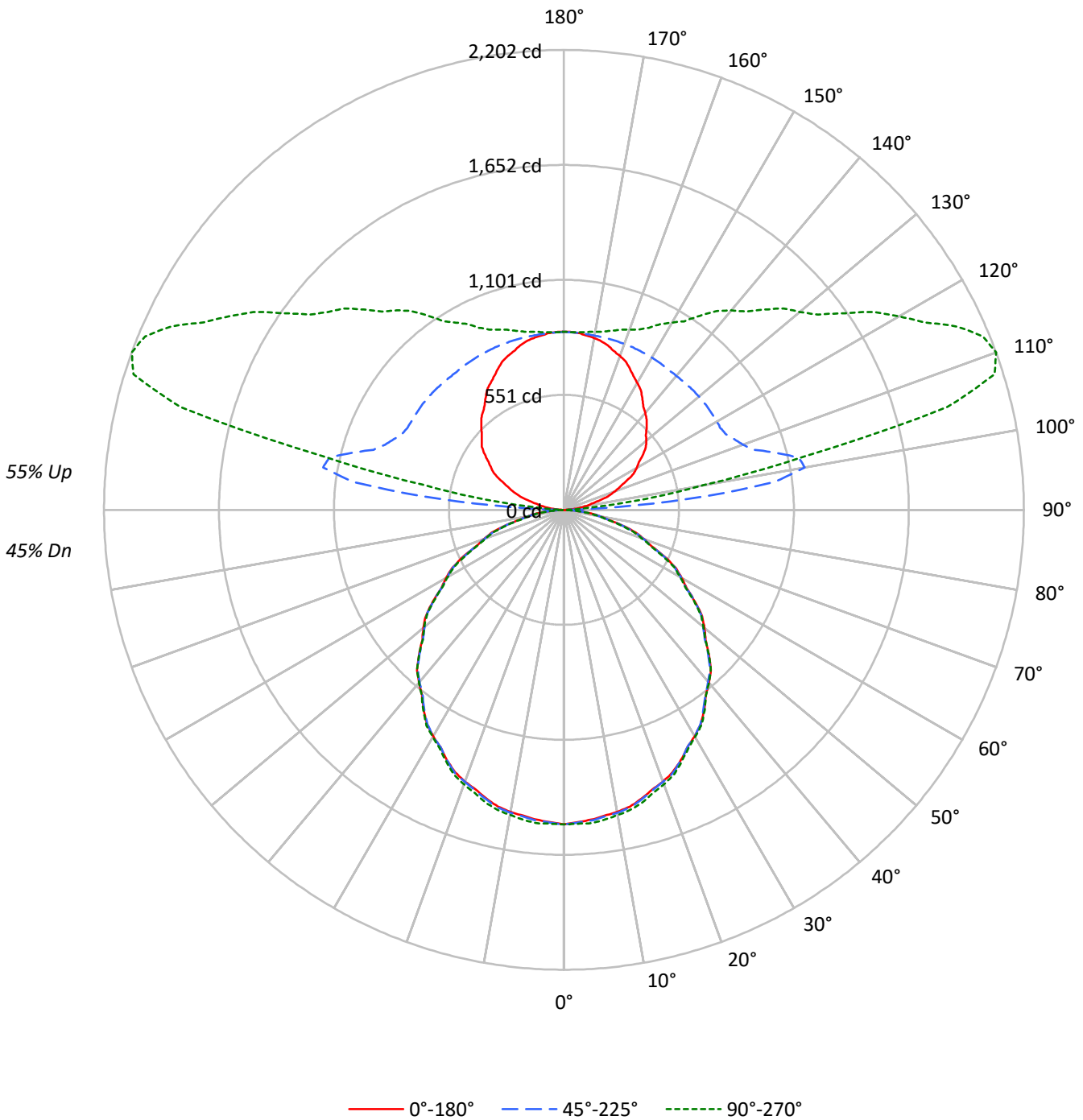
Lumens per Lamp: N/A
Luminaire Lumens: 9485.5 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 81.5
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: P853724

CATALOG NUMBER: SQ2-F-125U-100D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853724

CATALOG NUMBER: SQ2-F-125U-100D-940-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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	85	88	84	81	78	70	68	66	57	55	54	45	44	43	37
2	88	80	74	69	80	74	68	64	61	57	54	50	47	45	39	38	36	31
3	80	70	63	57	73	65	58	53	54	49	45	44	41	38	35	32	30	26
4	73	62	54	48	67	57	50	45	48	43	38	39	35	32	31	28	26	22
5	67	55	47	41	61	51	44	38	43	37	33	35	31	28	28	25	23	19
6	62	49	41	36	56	46	38	33	38	33	29	32	27	24	25	22	20	17
7	57	45	37	31	52	41	34	29	35	29	25	29	24	21	23	20	18	15
8	53	40	33	27	48	37	30	26	32	26	22	26	22	19	21	18	16	13
9	49	37	29	24	45	34	27	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	20	27	21	18	22	18	15	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24314	24314	24314
5°	24141	24208	24407
10°	24082	24150	24319
15°	23936	24005	24246
20°	23794	23830	24041
25°	23575	23575	23721
30°	23332	23332	23409
35°	23049	22969	23130
40°	22744	22658	22744
45°	22393	22299	22393
50°	22057	21851	21901
55°	21540	21484	21368
60°	21003	20870	20734
65°	20378	20145	19908
70°	19176	19081	18694
75°	18047	17661	17149
80°	16020	15639	15072
85°	12931	11782	11023

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 22530 cd/sqm



TEST NUMBER: P853724

CATALOG NUMBER: SQ2-F-125U-100D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	1.5
10°-20°	406.7	4.3
20°-30°	611.9	6.5
30°-40°	732.2	7.7
40°-50°	755.5	8.0
50°-60°	681.5	7.2
60°-70°	520.1	5.5
70°-80°	299.0	3.2
80°-90°	79.0	0.8
90°-100°	325.9	3.4
100°-110°	1061.2	11.2
110°-120°	1049.7	11.1
120°-130°	857.8	9.0
130°-140°	701.1	7.4
140°-150°	546.1	5.8
150°-160°	393.6	4.1
160°-170°	240.6	2.5
170°-180°	81.2	0.9
0°-30°	1161.0	12.2
0°-40°	1893.2	20.0
0°-60°	3330.2	35.1
0°-90°	4228.2	44.6
90°-120°	2436.8	25.7
90°-150°	4541.8	47.9
90°-180°	5257.0	55.4
0°-180°	9485.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1506	1506	1506	1506	1506	
5°	1490	1510	1494	1496	1506	141
15°	1432	1450	1436	1442	1450	404
25°	1323	1337	1323	1326	1332	609
35°	1169	1177	1165	1170	1174	731
45°	981	987	977	979	981	757
55°	765	769	763	759	759	684
65°	533	531	527	523	521	524
75°	289	287	283	277	275	305
85°	70	66	64	58	60	81
90°	0	3	7	6	6	5
95°	44	134	597	213	131	51
105°	180	260	1051	2008	1901	192
115°	333	398	856	1765	2076	330
125°	463	516	845	1393	1642	412
135°	560	618	841	1202	1356	432
145°	654	702	838	1036	1134	409
155°	746	771	844	927	962	344
165°	814	822	846	878	888	229
175°	849	849	849	855	853	81
180°	852	852	852	852	852	



TEST NUMBER: P853724

CATALOG NUMBER: SQ2-F-125U-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1505.9	1505.9	1505.9	1505.9	1505.9
2.5°	1496.0	1513.7	1499.3	1502.6	1504.2
5°	1489.5	1509.5	1493.6	1495.8	1505.9
7.5°	1477.1	1498.8	1481.2	1485.2	1496.4
10°	1468.9	1489.0	1473.0	1475.3	1483.3
12.5°	1455.8	1475.9	1459.9	1463.8	1471.8
15°	1432.0	1450.1	1436.1	1442.5	1450.5
17.5°	1404.5	1423.8	1408.2	1413.7	1420.5
20°	1384.8	1400.9	1386.9	1389.2	1399.2
22.5°	1360.2	1376.3	1363.9	1364.5	1372.9
25°	1323.3	1337.3	1323.3	1325.5	1331.5
27.5°	1281.0	1293.0	1281.0	1283.2	1288.4
30°	1251.5	1263.5	1251.5	1253.6	1255.6
32.5°	1218.6	1229.1	1217.0	1219.2	1224.4
35°	1169.4	1177.4	1165.3	1169.5	1173.5
37.5°	1116.9	1122.9	1112.8	1114.9	1118.5
40°	1079.1	1085.2	1075.0	1077.1	1079.1
42.5°	1041.4	1045.8	1035.6	1037.8	1041.4
45°	980.7	986.7	976.6	978.7	980.7
47.5°	919.1	922.7	914.2	912.6	916.2
50°	878.1	880.1	869.9	869.9	871.9
52.5°	833.8	835.8	828.8	825.6	827.6
55°	765.2	769.3	763.2	759.1	759.1
57.5°	696.3	699.9	692.2	690.1	689.7
60°	650.4	652.4	646.3	644.2	642.1
62.5°	604.4	604.8	598.7	596.6	594.6
65°	533.4	531.4	527.3	523.1	521.1
67.5°	453.8	455.8	451.8	445.2	445.2
70°	406.2	408.2	404.2	396.0	396.0
72.5°	360.3	359.1	356.6	349.9	346.7
75°	289.3	287.3	283.1	276.9	274.9
77.5°	218.3	216.3	214.2	206.4	208.0
80°	172.3	170.3	168.2	162.1	162.1
82.5°	131.3	127.7	125.6	119.4	119.4
85°	69.8	65.7	63.6	57.5	59.5
87.5°	19.7	18.7	17.9	14.4	14.4
90°	0.0	3.1	7.3	6.3	6.3
92.5°	15.1	54.2	173.4	57.1	44.0
95°	44.0	134.2	597.4	213.0	131.0
97.5°	82.8	174.6	1013.9	617.5	376.9
100°	108.0	198.1	1170.7	1043.9	677.1
102.5°	136.5	223.4	1151.4	1544.4	1174.3
105°	180.3	260.2	1051.2	2007.8	1901.2
107.5°	227.6	302.9	956.1	2048.0	2160.9
110°	262.0	330.7	910.8	1998.1	2202.0



TEST NUMBER: P853724

CATALOG NUMBER: SQ2-F-125U-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	290.5	358.4	882.3	1908.0	2171.0
115°	333.3	397.9	856.3	1764.7	2076.3
117.5°	377.3	435.5	846.2	1633.5	1943.6
120°	402.5	459.9	843.7	1552.7	1853.0
122.5°	426.8	483.3	844.5	1482.7	1762.5
125°	463.3	516.5	844.8	1393.3	1642.3
127.5°	494.5	549.0	844.5	1326.4	1534.0
130°	514.6	569.9	843.7	1288.1	1473.6
132.5°	532.2	590.0	842.9	1252.6	1426.7
135°	559.7	618.1	840.6	1202.5	1356.2
137.5°	586.5	645.3	838.3	1151.6	1288.1
140°	605.8	662.2	837.4	1117.0	1246.2
142.5°	624.2	678.1	837.4	1084.0	1199.2
145°	654.0	702.2	838.5	1035.6	1134.0
147.5°	682.9	724.7	839.9	994.5	1070.5
150°	702.2	739.1	841.6	969.9	1034.5
152.5°	721.5	751.8	842.5	951.2	1002.6
155°	746.2	770.8	843.7	927.3	962.1
157.5°	769.7	787.3	845.0	909.7	934.1
160°	784.0	798.3	845.8	898.7	918.1
162.5°	796.5	807.6	845.8	889.3	903.9
165°	814.4	821.5	845.8	877.5	887.7
167.5°	826.9	831.4	846.0	868.6	873.9
170°	835.3	837.4	846.9	862.6	864.7
172.5°	841.2	842.4	848.5	859.2	858.8
175°	848.9	848.9	848.9	855.2	853.1
177.5°	852.1	851.3	850.4	854.5	851.3
180°	852.1	852.1	852.1	852.1	852.1



TEST NUMBER: P853724

CATALOG NUMBER: SQ2-F-125U-100D-940-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	18.53	19.36	19.53	20.37	21.72	18.46	19.28	19.46	20.29	21.64
	3H	20.31	21.05	21.32	22.07	23.44	20.19	20.93	21.20	21.95	23.32
	4H	20.97	21.67	21.99	22.69	24.07	20.82	21.52	21.84	22.54	23.92
	6H	21.44	22.08	22.47	23.11	24.50	21.25	21.90	22.28	22.93	24.31
	8H	21.57	22.19	22.61	23.23	24.62	21.37	21.99	22.41	23.03	24.41
	12H	21.65	22.23	22.69	23.27	24.68	21.42	22.01	22.47	23.05	24.45
4H	2H	19.08	19.78	20.11	20.81	22.18	19.02	19.72	20.05	20.74	22.12
	3H	21.06	21.65	22.10	22.70	24.09	20.96	21.54	21.99	22.59	23.98
	4H	21.85	22.39	22.90	23.43	24.84	21.71	22.25	22.75	23.29	24.70
	6H	22.44	22.90	23.50	23.97	25.37	22.26	22.72	23.32	23.79	25.19
	8H	22.63	23.06	23.68	24.12	25.54	22.43	22.86	23.48	23.92	25.34
	12H	22.73	23.12	23.80	24.19	25.62	22.50	22.89	23.57	23.96	25.39
8H	4H	22.10	22.53	23.15	23.59	25.01	21.97	22.40	23.03	23.46	24.88
	6H	22.81	23.17	23.89	24.27	25.69	22.65	23.00	23.73	24.11	25.52
	8H	23.08	23.39	24.17	24.48	25.92	22.89	23.20	23.97	24.29	25.72
	12H	23.25	23.52	24.34	24.60	26.08	23.02	23.29	24.11	24.37	25.85
12H	4H	22.09	22.48	23.16	23.55	24.98	21.97	22.36	23.04	23.43	24.86
	6H	22.86	23.17	23.94	24.25	25.69	22.70	23.01	23.78	24.10	25.53
	8H	23.15	23.42	24.24	24.50	25.98	22.96	23.24	24.05	24.32	25.79