

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: P853835

Luminaire Tested: SQ2-FB-025U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853835
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-025U-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

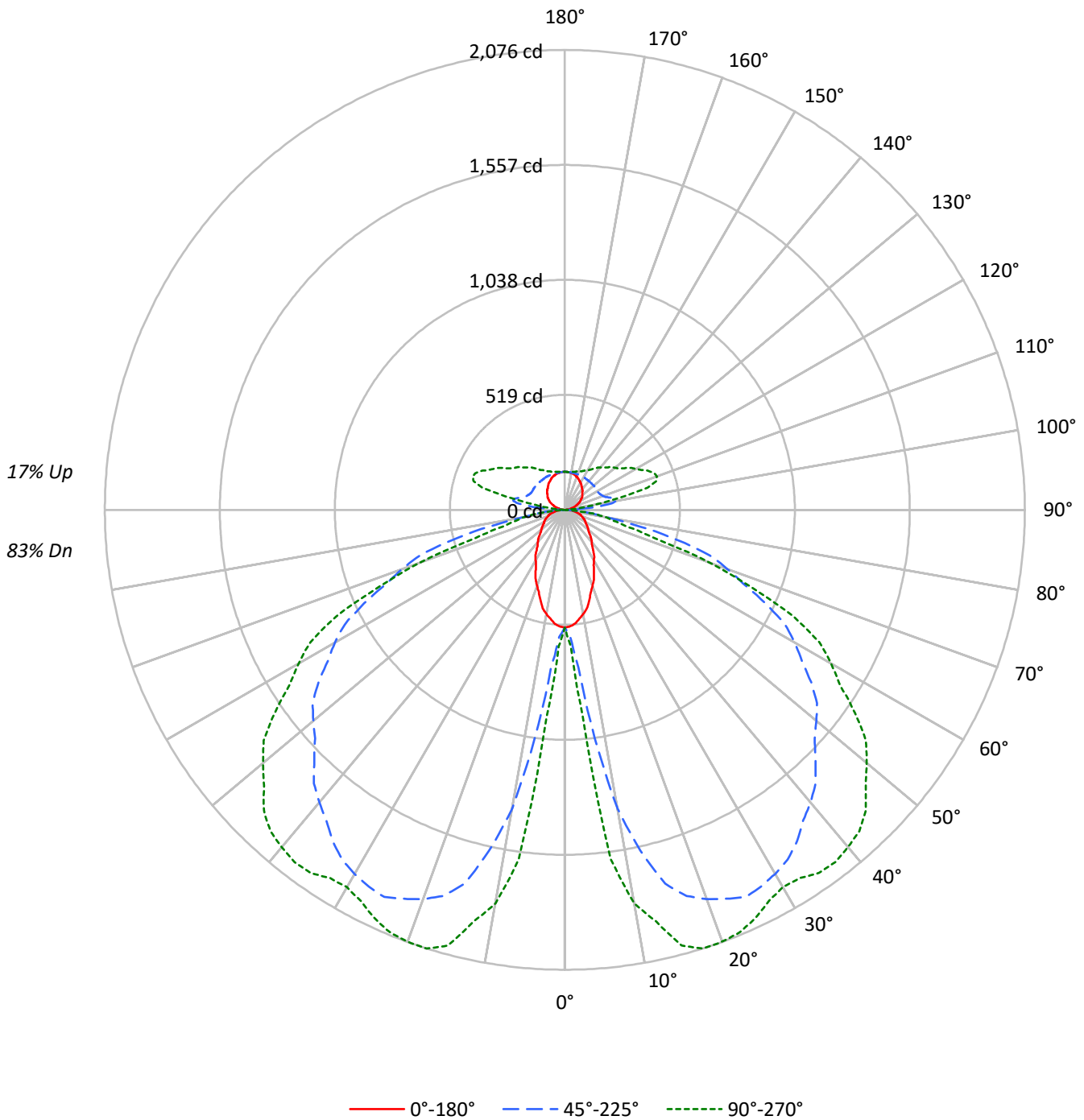
Lumens per Lamp: N/A
Luminaire Lumens: 6313.6 lumens
Efficiency: N/A
Efficacy: 111.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 56.6
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: P853835

CATALOG NUMBER: SQ2-FB-025U-125D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853835

CATALOG NUMBER: SQ2-FB-025U-125D-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	50	30	10	0	
RCR																						
0	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	83				
1	105	100	96	92	101	96	93	89	89	86	83	82	80	78	76	74	73	69				
2	95	87	80	74	91	84	77	72	77	72	68	72	68	64	66	63	60	57				
3	86	76	68	61	82	73	66	60	68	61	56	63	58	53	58	54	50	47				
4	79	67	58	51	75	64	56	50	59	53	47	55	50	45	51	46	43	40				
5	72	59	50	43	69	57	49	42	53	46	40	49	43	38	46	41	36	34				
6	66	53	44	37	63	51	42	36	47	40	35	44	38	33	41	36	32	29				
7	61	47	39	32	58	46	38	32	43	36	30	40	34	29	37	32	28	25				
8	56	43	34	28	54	41	33	28	39	32	27	36	30	26	34	28	24	22				
9	52	39	31	25	50	38	30	25	35	29	24	33	27	23	31	26	22	20				
10	49	36	28	23	47	35	27	22	32	26	21	30	25	20	29	23	20	18				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8578	8578	8578
5°	8363	11593	15195
10°	7832	22448	29568
15°	7089	29207	34033
20°	6277	32129	35641
25°	5553	34360	36225
30°	4905	35386	36672
35°	4380	36001	39425
40°	3984	36343	41890
45°	3674	36516	43863
50°	3464	37216	44661
55°	3381	38185	45017
60°	3465	38689	44792
65°	3610	38158	43526
70°	3739	36902	32922
75°	4142	33144	18166
80°	4277	17099	16867
85°	4261	11838	7095

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 45422 cd/sqm



TEST NUMBER: P853835

CATALOG NUMBER: SQ2-FB-025U-125D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.0	1.4
10°-20°	406.4	6.4
20°-30°	714.9	11.3
30°-40°	925.4	14.7
40°-50°	1020.7	16.2
50°-60°	953.0	15.1
60°-70°	736.5	11.7
70°-80°	339.7	5.4
80°-90°	65.3	1.0
90°-100°	69.3	1.1
100°-110°	215.5	3.4
110°-120°	210.9	3.3
120°-130°	172.1	2.7
130°-140°	140.8	2.2
140°-150°	109.9	1.7
150°-160°	79.3	1.3
160°-170°	48.5	0.8
170°-180°	16.3	0.3
0°-30°	1210.3	19.2
0°-40°	2135.7	33.8
0°-60°	4109.4	65.1
0°-90°	5250.9	83.2
90°-120°	495.7	7.9
90°-150°	918.5	14.5
90°-180°	1063.0	16.8
0°-180°	6313.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	531	531	531	531	531	
5°	516	591	715	873	938	48
15°	424	836	1747	1956	2036	118
25°	312	1123	1929	2014	2033	143
35°	222	1084	1826	1890	2000	140
45°	161	830	1599	1836	1921	125
55°	120	495	1356	1559	1599	108
65°	94	279	999	1119	1139	93
75°	66	171	531	286	291	68
85°	23	50	64	43	38	24
90°	0	1	3	3	3	2
95°	10	28	127	47	30	11
105°	38	53	212	405	387	40
115°	67	80	172	355	416	66
125°	94	104	170	280	328	83
135°	112	125	169	241	271	87
145°	131	142	169	208	227	82
155°	150	155	170	187	193	69
165°	165	166	171	176	179	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



TEST NUMBER: P853835

CATALOG NUMBER: SQ2-FB-025U-125D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	531.3	531.3	531.3	531.3	531.3
2.5°	527.3	549.2	574.3	603.1	615.1
5°	516.0	591.0	715.3	872.6	937.5
7.5°	496.1	648.5	1040.2	1461.1	1591.0
10°	477.7	690.0	1369.2	1733.6	1803.5
12.5°	457.3	745.5	1575.7	1831.7	1903.7
15°	424.1	836.2	1747.3	1956.1	2036.0
17.5°	389.8	938.3	1827.0	2032.9	2076.3
20°	365.3	1009.7	1869.9	2046.8	2074.3
22.5°	342.8	1063.2	1900.6	2034.6	2064.1
25°	311.7	1123.4	1928.7	2013.5	2033.4
27.5°	281.5	1139.3	1916.4	1972.1	1991.5
30°	263.1	1134.9	1898.0	1939.5	1967.0
32.5°	246.8	1122.5	1871.5	1911.7	1971.1
35°	222.2	1084.0	1826.5	1890.3	2000.2
37.5°	201.3	1022.1	1767.2	1897.9	2003.8
40°	189.0	975.8	1724.3	1897.5	1987.5
42.5°	176.8	921.6	1675.3	1877.1	1967.0
45°	160.9	830.3	1599.2	1836.1	1921.0
47.5°	146.1	727.6	1528.7	1779.4	1841.3
50°	137.9	657.5	1481.6	1728.0	1778.0
52.5°	129.8	589.4	1434.6	1666.6	1712.6
55°	120.1	494.7	1356.5	1559.2	1599.2
57.5°	111.4	413.6	1267.6	1440.5	1473.0
60°	107.3	369.6	1198.1	1354.7	1387.1
62.5°	101.2	329.5	1120.4	1264.7	1295.2
65°	94.5	279.4	998.8	1119.4	1139.3
67.5°	85.3	242.2	869.6	943.3	905.8
70°	79.2	224.1	781.7	804.8	697.4
72.5°	75.1	204.0	685.6	624.8	421.5
75°	66.4	171.3	531.3	286.2	291.2
77.5°	54.2	132.6	349.5	219.8	224.3
80°	46.0	108.4	183.9	178.9	181.4
82.5°	37.8	84.3	126.7	131.7	128.2
85°	23.0	50.5	63.9	43.3	38.3
87.5°	8.2	18.4	10.8	10.8	10.8
90°	0.0	1.0	3.2	3.2	3.2
92.5°	3.4	11.8	40.1	13.2	10.7
95°	9.5	27.9	127.1	46.9	30.5
97.5°	17.2	36.3	210.5	131.0	82.6
100°	23.1	40.6	237.4	222.1	148.1
102.5°	29.0	45.6	232.4	317.2	249.0
105°	37.8	53.2	212.2	405.1	386.6
107.5°	46.6	61.0	192.9	411.8	432.2
110°	52.5	66.9	182.8	402.2	442.2



TEST NUMBER: P853835

CATALOG NUMBER: SQ2-FB-025U-125D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.4	72.0	177.7	384.8	435.5
115°	67.2	79.6	172.3	355.4	416.0
117.5°	75.8	87.1	170.0	327.3	389.3
120°	80.9	92.2	169.1	311.2	370.8
122.5°	85.9	97.2	170.0	297.7	352.3
125°	93.5	103.8	170.2	279.5	327.7
127.5°	99.6	110.1	170.2	265.9	306.9
130°	102.9	114.2	170.2	258.2	295.2
132.5°	107.1	118.4	169.3	251.4	285.9
135°	112.4	124.7	169.1	241.2	271.0
137.5°	118.5	129.8	169.1	231.1	258.2
140°	121.9	133.2	169.1	224.3	249.0
142.5°	126.1	136.5	169.1	217.5	239.7
145°	131.3	141.6	169.1	208.4	226.9
147.5°	137.6	146.4	170.2	199.9	214.5
150°	141.8	149.0	170.2	195.6	206.9
152.5°	145.2	151.5	170.2	191.4	201.1
155°	150.2	155.4	170.2	187.1	193.3
157.5°	155.3	159.2	170.2	183.3	187.2
160°	158.6	161.7	170.2	180.8	183.8
162.5°	161.1	163.4	170.2	179.1	181.3
165°	164.9	166.0	171.2	176.5	178.6
167.5°	167.2	167.4	170.2	175.0	176.1
170°	168.1	169.1	170.2	173.4	174.4
172.5°	169.8	170.0	171.0	172.5	172.7
175°	171.2	171.2	171.2	172.3	171.2
177.5°	171.2	171.2	171.2	171.2	171.2
180°	171.2	171.2	171.2	171.2	171.2

TEST NUMBER: P853835

CATALOG NUMBER: SQ2-FB-025U-125D-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	17.13	18.46	17.74	19.07	19.77	25.87	27.19	26.47	27.81	28.51
	3H	17.90	19.09	18.52	19.72	20.45	27.53	28.72	28.15	29.35	30.08
	4H	18.22	19.34	18.86	19.98	20.73	27.73	28.85	28.37	29.49	30.24
	6H	18.46	19.50	19.11	20.15	20.92	27.84	28.88	28.49	29.53	30.29
	8H	18.53	19.52	19.20	20.20	20.97	27.86	28.85	28.52	29.52	30.29
	12H	18.58	19.52	19.25	20.19	20.99	27.84	28.79	28.51	29.46	30.25
4H	2H	21.59	22.71	22.23	23.35	24.10	26.37	27.49	27.01	28.13	28.88
	3H	22.57	23.50	23.22	24.18	24.95	28.24	29.18	28.89	29.86	30.63
	4H	22.87	23.72	23.54	24.40	25.20	28.50	29.35	29.17	30.03	30.83
	6H	23.03	23.77	23.72	24.48	25.29	28.67	29.41	29.36	30.12	30.93
	8H	23.06	23.75	23.76	24.46	25.28	28.71	29.40	29.40	30.10	30.93
	12H	23.08	23.70	23.79	24.43	25.26	28.70	29.32	29.42	30.05	30.88
8H	4H	24.08	24.77	24.78	25.48	26.30	28.65	29.34	29.35	30.05	30.87
	6H	24.34	24.91	25.07	25.66	26.49	28.88	29.45	29.61	30.20	31.03
	8H	24.42	24.93	25.16	25.68	26.52	28.95	29.46	29.69	30.21	31.05
	12H	24.47	24.91	25.21	25.66	26.56	28.96	29.41	29.71	30.15	31.06
12H	4H	24.12	24.74	24.84	25.48	26.30	28.63	29.25	29.35	29.98	30.81
	6H	24.44	24.95	25.18	25.70	26.54	28.87	29.38	29.61	30.13	30.97
	8H	24.57	25.02	25.31	25.76	26.66	28.96	29.41	29.70	30.15	31.05