

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: P853859

Luminaire Tested: SQ2-FB-075U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853859
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-075U-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

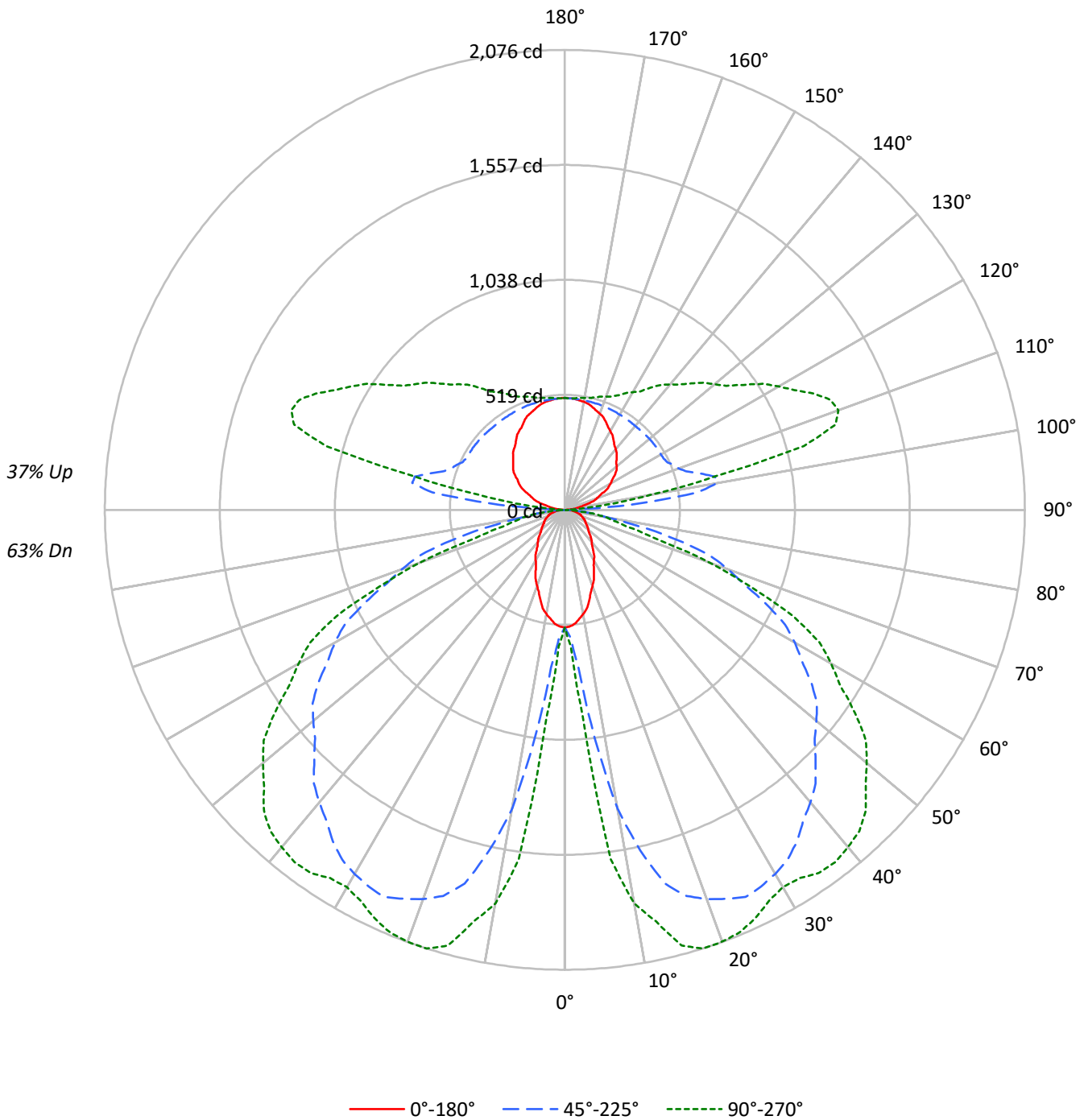
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8374.4 lumens
Efficiency: N/A
Efficacy: 115.5 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): 72.5
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

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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	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68	63
1	100	96	92	88	94	90	87	83	79	76	74	69	67	65	60	58	57	52
2	91	83	77	71	85	78	72	68	69	64	60	60	57	54	52	49	47	43
3	83	73	65	59	77	68	61	56	60	55	50	52	48	45	45	42	39	36
4	75	64	56	49	70	60	53	47	53	47	42	46	42	38	40	36	33	30
5	69	57	48	42	64	53	46	40	47	41	36	41	36	32	36	32	29	26
6	63	50	42	36	59	48	40	34	42	36	31	37	32	28	32	28	25	22
7	58	45	37	31	54	43	35	30	38	32	27	33	28	24	29	25	22	19
8	54	41	33	27	50	39	31	26	34	28	24	30	25	21	26	22	19	17
9	50	37	29	24	47	35	28	23	31	25	21	28	23	19	24	20	17	15
10	47	34	26	21	44	32	25	21	29	23	19	25	20	17	22	18	15	13

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.0	1.1
10°-20°	406.4	4.9
20°-30°	714.9	8.5
30°-40°	925.4	11.1
40°-50°	1020.7	12.2
50°-60°	953.0	11.4
60°-70°	736.5	8.8
70°-80°	339.7	4.1
80°-90°	65.4	0.8
90°-100°	190.8	2.3
100°-110°	632.4	7.6
110°-120°	627.7	7.5
120°-130°	511.3	6.1
130°-140°	415.5	5.0
140°-150°	322.7	3.9
150°-160°	232.5	2.8
160°-170°	142.4	1.7
170°-180°	48.1	0.6
0°-30°	1210.3	14.5
0°-40°	2135.7	25.5
0°-60°	4109.4	49.1
0°-90°	5251.0	62.7
90°-120°	1450.9	17.3
90°-150°	2700.4	32.2
90°-180°	3123.0	37.3
0°-180°	8374.4	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	4	4	2
95°	27	80	346	123	82	31
105°	111	158	633	1194	1116	117
115°	197	236	510	1061	1241	195
125°	276	306	500	834	983	245
135°	330	364	496	715	807	255
145°	383	412	495	616	674	240
155°	438	453	498	550	570	202
165°	480	486	500	520	525	135
175°	502	502	503	506	506	48
180°	504	504	504	504	504	



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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	11.1	11.1
90°	0.0	1.0	3.1	4.2	4.2
92.5°	8.4	32.3	95.0	30.8	25.9
95°	27.2	80.3	345.7	123.4	82.5
97.5°	49.9	105.5	603.5	352.0	222.5
100°	65.8	118.9	698.7	600.1	397.9
102.5°	83.3	134.8	692.9	917.1	692.9
105°	110.7	157.7	632.9	1194.1	1116.5
107.5°	138.7	180.6	575.5	1222.3	1281.3
110°	154.6	196.4	546.2	1194.4	1313.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	171.3	212.3	528.7	1145.0	1297.2
115°	197.4	236.2	509.7	1061.1	1240.8
117.5°	223.3	257.8	502.8	980.8	1169.4
120°	239.2	272.9	500.3	930.6	1113.4
122.5°	253.4	286.3	500.3	889.3	1058.2
125°	275.7	306.4	500.3	833.7	982.8
127.5°	294.1	324.1	499.0	791.7	919.1
130°	305.0	336.6	498.2	767.1	881.5
132.5°	315.0	347.5	497.4	746.8	849.8
135°	330.0	363.7	496.1	715.4	807.4
137.5°	346.3	378.8	494.9	685.1	766.2
140°	357.2	388.9	494.0	664.9	739.5
142.5°	367.2	398.1	494.9	644.7	711.1
145°	383.3	411.9	495.1	615.5	673.7
147.5°	400.6	424.5	495.3	590.7	634.0
150°	411.5	433.0	496.1	576.3	613.1
152.5°	421.5	442.2	496.9	564.5	593.9
155°	437.6	452.9	498.2	549.8	570.3
157.5°	453.3	465.1	499.5	539.5	554.0
160°	461.6	471.9	500.3	531.9	543.1
162.5°	470.0	477.8	500.3	526.8	535.6
165°	480.4	485.5	500.3	520.2	525.4
167.5°	490.1	492.7	501.3	514.3	517.0
170°	495.1	496.1	501.3	511.8	512.8
172.5°	498.4	499.4	502.2	509.3	509.5
175°	502.4	502.4	503.4	506.5	505.5
177.5°	504.5	504.5	503.6	505.3	503.6
180°	504.5	504.5	504.5	504.5	504.5



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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	15.61	16.64	16.45	17.50	18.57	24.35	25.38	25.18	26.24	27.31
	3H	16.36	17.28	17.20	18.15	19.25	25.99	26.91	26.83	27.78	28.88
	4H	16.67	17.54	17.53	18.41	19.52	26.17	27.04	27.04	27.92	29.03
	6H	16.89	17.69	17.77	18.58	19.70	26.27	27.07	27.14	27.95	29.08
	8H	16.95	17.72	17.84	18.62	19.75	26.28	27.04	27.16	27.94	29.07
	12H	16.99	17.72	17.88	18.61	19.76	26.26	26.98	27.15	27.88	29.03
4H	2H	20.03	20.90	20.90	21.78	22.89	24.81	25.68	25.68	26.56	27.67
	3H	20.98	21.71	21.86	22.62	23.75	26.66	27.38	27.54	28.29	29.42
	4H	21.27	21.93	22.17	22.84	23.99	26.90	27.56	27.79	28.47	29.62
	6H	21.41	21.98	22.32	22.91	24.07	27.06	27.63	27.96	28.56	29.71
	8H	21.44	21.97	22.35	22.90	24.07	27.09	27.62	28.00	28.54	29.71
	12H	21.44	21.92	22.37	22.86	24.04	27.07	27.55	28.00	28.49	29.67
8H	4H	22.46	22.99	23.37	23.92	25.09	27.03	27.57	27.94	28.49	29.66
	6H	22.71	23.15	23.65	24.11	25.28	27.25	27.69	28.18	28.65	29.82
	8H	22.78	23.17	23.73	24.13	25.31	27.31	27.70	28.26	28.66	29.84
	12H	22.81	23.16	23.77	24.11	25.34	27.31	27.65	28.26	28.60	29.84
12H	4H	22.49	22.97	23.42	23.91	25.09	26.99	27.47	27.92	28.42	29.59
	6H	22.80	23.19	23.75	24.15	25.34	27.23	27.62	28.18	28.58	29.76
	8H	22.92	23.26	23.87	24.21	25.44	27.31	27.65	28.26	28.60	29.83