

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: P853689

Luminaire Tested: SQ2-F-075U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853689
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-075U-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

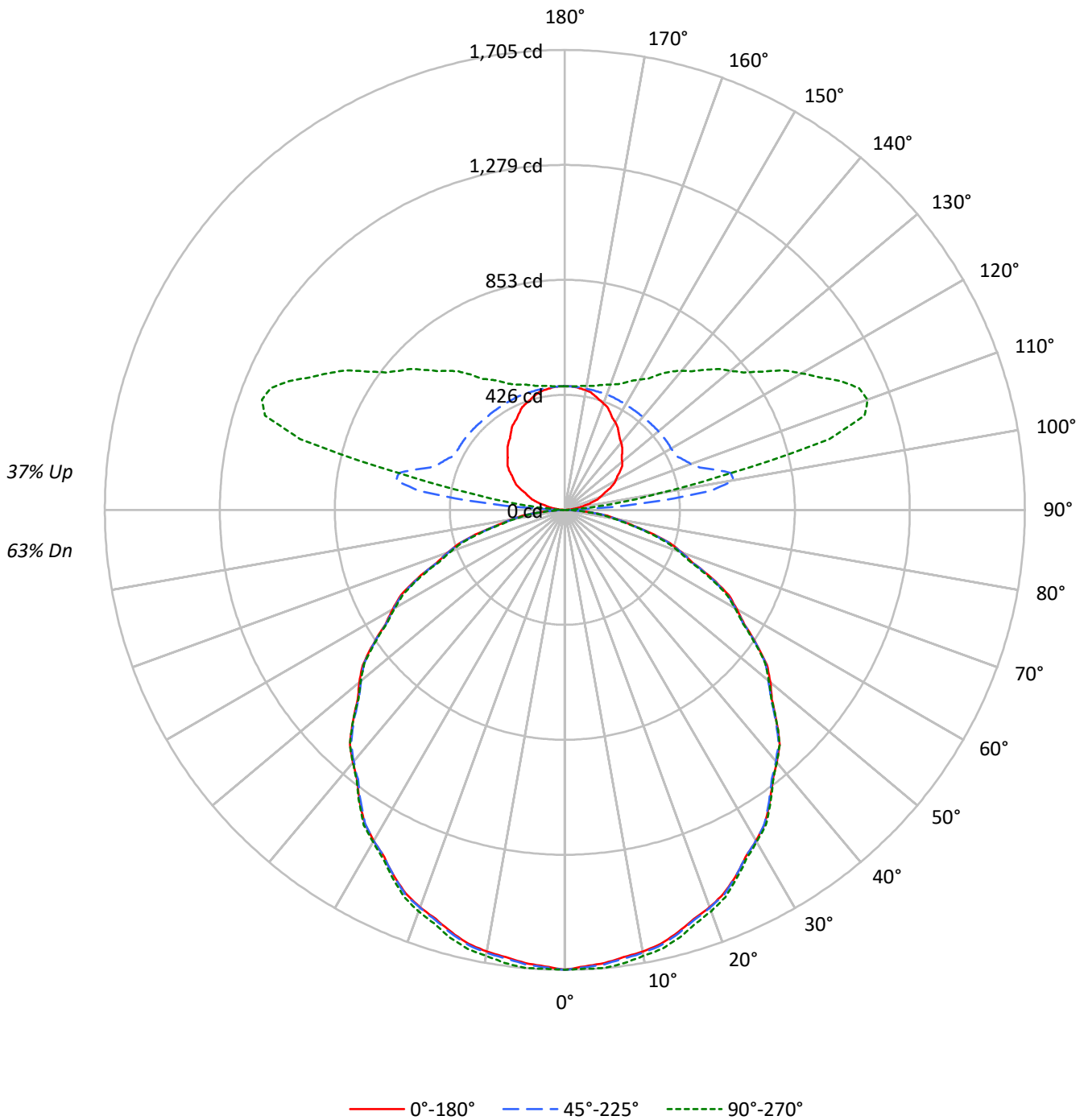
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7626.5 lumens
Efficiency: N/A
Efficacy: 105.2 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: 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	84	77	72	85	79	73	68	69	65	61	60	57	54	52	50	48	44
3	83	73	66	60	78	69	62	57	61	55	51	53	49	46	46	43	40	37
4	76	65	57	50	71	61	54	48	54	48	43	47	43	39	41	38	35	31
5	70	58	49	43	65	54	47	41	48	42	37	42	38	34	37	33	30	27
6	64	52	43	37	60	49	41	36	43	37	33	38	33	29	33	30	26	24
7	59	47	39	33	56	44	37	31	39	33	29	35	30	26	31	26	23	21
8	55	42	34	29	52	40	33	28	36	30	25	32	27	23	28	24	21	19
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	26	22	19	17
10	48	36	28	23	45	34	27	22	30	25	21	27	22	19	24	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27527	27527	27527
5°	27331	27407	27632
10°	27266	27343	27534
15°	27101	27178	27450
20°	26940	26979	27218
25°	26690	26690	26856
30°	26416	26416	26502
35°	26097	26004	26187
40°	25752	25653	25752
45°	25352	25245	25352
50°	24970	24739	24797
55°	24389	24324	24192
60°	23776	23628	23476
65°	23072	22808	22541
70°	21711	21602	21163
75°	20430	19994	19420
80°	18140	17713	17062
85°	14635	13338	12486

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 25507 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.2	2.1
10°-20°	460.5	6.0
20°-30°	692.8	9.1
30°-40°	829.0	10.9
40°-50°	855.3	11.2
50°-60°	771.6	10.1
60°-70°	588.8	7.7
70°-80°	338.5	4.4
80°-90°	88.8	1.2
90°-100°	173.5	2.3
100°-110°	575.1	7.5
110°-120°	570.7	7.5
120°-130°	464.9	6.1
130°-140°	377.8	5.0
140°-150°	293.4	3.8
150°-160°	211.4	2.8
160°-170°	129.5	1.7
170°-180°	43.7	0.6
0°-30°	1314.5	17.2
0°-40°	2143.5	28.1
0°-60°	3770.4	49.4
0°-90°	4786.5	62.8
90°-120°	1319.3	17.3
90°-150°	2455.4	32.2
90°-180°	2840.0	37.2
0°-180°	7626.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1705	1705	1705	1705	1705	
5°	1686	1709	1691	1694	1705	160
15°	1621	1642	1626	1633	1642	457
25°	1498	1514	1498	1501	1508	690
35°	1324	1333	1319	1324	1329	828
45°	1110	1117	1106	1108	1110	857
55°	866	871	864	859	859	775
65°	604	602	597	592	590	594
75°	328	325	320	314	311	345
85°	79	74	72	65	67	91
90°	0	1	3	4	4	4
95°	25	73	314	112	75	28
105°	101	143	576	1086	1015	106
115°	180	215	463	965	1128	177
125°	251	279	455	758	894	223
135°	300	331	451	650	734	232
145°	348	374	450	560	612	219
155°	398	412	453	500	518	183
165°	437	442	455	473	478	123
175°	457	457	458	461	460	43
180°	459	459	459	459	459	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1704.9	1704.9	1704.9	1704.9	1704.9
2.5°	1693.8	1713.8	1697.5	1701.2	1703.1
5°	1686.3	1709.0	1691.0	1693.6	1704.9
7.5°	1672.4	1696.9	1677.0	1681.5	1694.2
10°	1663.1	1685.8	1667.8	1670.3	1679.4
12.5°	1648.2	1671.0	1652.9	1657.3	1666.4
15°	1621.3	1641.7	1625.9	1633.1	1642.2
17.5°	1590.2	1612.0	1594.4	1600.6	1608.3
20°	1567.9	1586.0	1570.2	1572.8	1584.1
22.5°	1540.0	1558.2	1544.2	1544.9	1554.4
25°	1498.2	1514.1	1498.2	1500.7	1507.5
27.5°	1450.3	1464.0	1450.3	1452.8	1458.7
30°	1416.9	1430.5	1416.9	1419.3	1421.5
32.5°	1379.7	1391.5	1377.9	1380.3	1386.2
35°	1324.0	1333.1	1319.3	1324.1	1328.6
37.5°	1264.5	1271.3	1259.9	1262.3	1266.4
40°	1221.8	1228.6	1217.1	1219.5	1221.8
42.5°	1179.0	1184.0	1172.5	1175.0	1179.0
45°	1110.3	1117.1	1105.6	1108.0	1110.3
47.5°	1040.6	1044.7	1035.0	1033.3	1037.4
50°	994.1	996.4	984.9	984.9	987.2
52.5°	944.0	946.2	938.4	934.7	937.0
55°	866.4	870.9	864.1	859.4	859.4
57.5°	788.4	792.4	783.7	781.4	780.9
60°	736.3	738.6	731.7	729.3	727.0
62.5°	684.3	684.7	677.8	675.4	673.1
65°	603.9	601.7	597.0	592.3	590.0
67.5°	513.8	516.1	511.5	504.0	504.0
70°	459.9	462.2	457.6	448.3	448.3
72.5°	407.9	406.5	403.7	396.2	392.5
75°	327.5	325.2	320.5	313.5	311.3
77.5°	247.1	244.9	242.5	233.7	235.5
80°	195.1	192.8	190.5	183.5	183.5
82.5°	148.7	144.6	142.2	135.2	135.2
85°	79.0	74.4	72.0	65.1	67.4
87.5°	22.3	20.7	19.2	15.6	15.6
90°	0.0	0.9	2.8	3.8	3.8
92.5°	7.6	29.3	86.4	28.0	23.6
95°	24.7	73.0	314.3	112.2	75.0
97.5°	45.4	95.9	548.7	320.0	202.3
100°	59.8	108.1	635.3	545.7	361.8
102.5°	75.8	122.6	630.0	833.9	630.0
105°	100.7	143.4	575.5	1085.8	1015.2
107.5°	126.1	164.2	523.3	1111.4	1165.1
110°	140.6	178.6	496.7	1086.1	1194.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	155.7	193.1	480.7	1041.1	1179.5
115°	179.5	214.8	463.4	964.8	1128.2
117.5°	203.0	234.4	457.2	891.8	1063.3
120°	217.5	248.1	454.9	846.1	1012.4
122.5°	230.4	260.3	454.9	808.6	962.2
125°	250.7	278.6	454.9	758.1	893.6
127.5°	267.4	294.7	453.8	719.8	835.7
130°	277.3	306.1	453.0	697.5	801.5
132.5°	286.4	316.0	452.2	679.1	772.7
135°	300.1	330.7	451.1	650.5	734.1
137.5°	314.9	344.4	450.0	623.0	696.7
140°	324.8	353.6	449.2	604.6	672.4
142.5°	333.9	362.0	450.0	586.2	646.5
145°	348.5	374.5	450.1	559.6	612.5
147.5°	364.3	386.0	450.3	537.1	576.5
150°	374.2	393.7	451.1	524.0	557.5
152.5°	383.3	402.0	451.9	513.2	540.0
155°	397.9	411.8	453.0	500.0	518.5
157.5°	412.2	422.9	454.1	490.5	503.7
160°	419.8	429.0	454.9	483.6	493.8
162.5°	427.4	434.4	454.9	479.0	487.0
165°	436.9	441.5	454.9	473.0	477.7
167.5°	445.6	448.0	455.8	467.7	470.1
170°	450.1	451.1	455.8	465.4	466.3
172.5°	453.2	454.1	456.6	463.1	463.3
175°	456.8	456.8	457.7	460.6	459.6
177.5°	458.7	458.7	457.9	459.4	457.9
180°	458.7	458.7	458.7	458.7	458.7

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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	20.58	21.59	21.42	22.45	23.52	20.50	21.51	21.34	22.37	23.44
	3H	22.37	23.27	23.22	24.14	25.25	22.25	23.15	23.10	24.03	25.13
	4H	23.04	23.89	23.90	24.77	25.88	22.89	23.74	23.75	24.62	25.73
	6H	23.51	24.30	24.39	25.19	26.31	23.33	24.12	24.21	25.00	26.13
	8H	23.66	24.41	24.54	25.31	26.44	23.45	24.20	24.34	25.11	26.23
	12H	23.74	24.45	24.63	25.35	26.50	23.51	24.23	24.40	25.12	26.28
4H	2H	21.15	22.00	22.02	22.88	23.99	21.09	21.94	21.96	22.82	23.93
	3H	23.15	23.86	24.03	24.77	25.90	23.04	23.75	23.92	24.66	25.79
	4H	23.95	24.60	24.84	25.50	26.66	23.80	24.45	24.70	25.36	26.51
	6H	24.54	25.11	25.45	26.04	27.19	24.36	24.93	25.27	25.86	27.01
	8H	24.73	25.26	25.65	26.18	27.35	24.53	25.06	25.44	25.98	27.15
	12H	24.84	25.32	25.77	26.26	27.44	24.62	25.09	25.55	26.03	27.21
8H	4H	24.20	24.73	25.12	25.65	26.82	24.08	24.60	24.99	25.53	26.70
	6H	24.93	25.36	25.87	26.33	27.50	24.76	25.20	25.70	26.16	27.33
	8H	25.20	25.58	26.15	26.54	27.73	25.00	25.39	25.95	26.35	27.53
	12H	25.37	25.71	26.32	26.66	27.90	25.14	25.48	26.10	26.43	27.67
12H	4H	24.20	24.68	25.14	25.62	26.80	24.08	24.56	25.02	25.50	26.68
	6H	24.97	25.36	25.92	26.32	27.50	24.81	25.20	25.76	26.16	27.34
	8H	25.27	25.61	26.22	26.56	27.80	25.09	25.43	26.04	26.38	27.61