

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: P854194

Luminaire Tested: SQ2-PR1-075U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854194
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-075U-125D-935-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

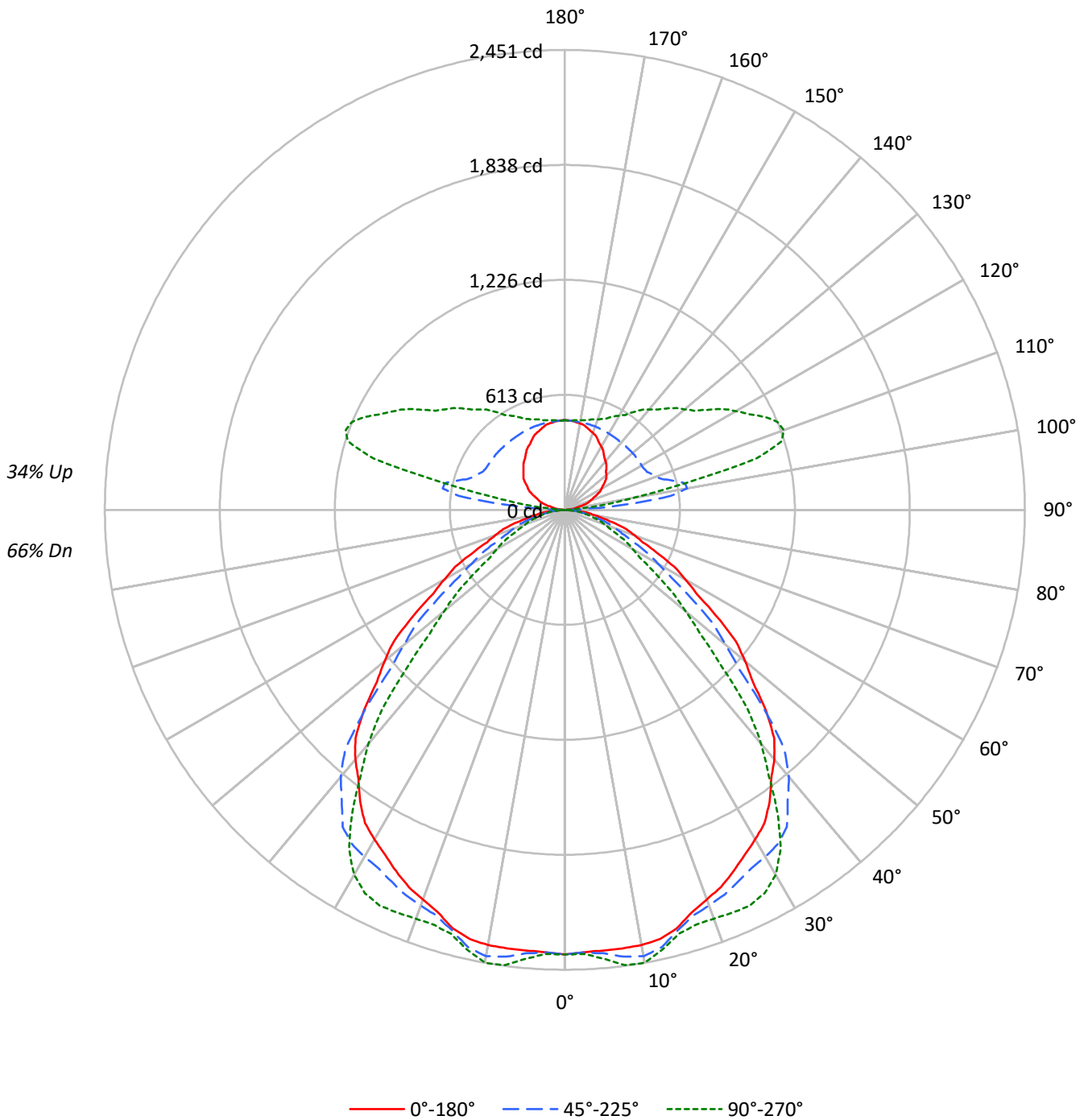
Lumens per Lamp: N/A
Luminaire Lumens: 8652.6 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	50	30	10	0	
RCR																						
0	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66				
1	102	98	94	91	96	93	89	86	82	80	78	73	71	69	64	63	61	57				
2	94	87	81	76	88	82	77	72	73	69	66	65	62	59	57	55	53	49				
3	86	77	70	64	81	73	66	61	65	60	56	58	54	51	51	48	46	43				
4	79	69	61	55	74	65	58	53	58	53	48	52	48	44	46	43	40	37				
5	73	61	54	48	69	58	51	46	53	47	42	47	42	39	42	38	35	33				
6	67	55	47	42	63	53	45	40	48	42	37	43	38	34	38	34	31	29				
7	62	50	42	37	59	48	41	36	43	37	33	39	34	31	35	31	28	26				
8	58	46	38	33	55	44	37	32	40	34	30	36	31	27	32	28	25	23				
9	54	42	35	30	51	40	33	29	37	31	27	33	28	25	30	26	23	21				
10	51	39	31	27	48	37	30	26	34	28	24	31	26	23	28	24	21	19				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	38253	38253	38253
5°	38203	38438	38908
10°	38605	39595	40189
15°	38593	38795	39117
20°	37969	38550	39837
25°	37860	38936	41475
30°	37820	39802	41874
35°	37462	40653	38985
40°	36598	39144	34307
45°	34632	34356	27131
50°	31483	28087	21049
55°	27668	23113	16383
60°	23941	18484	13491
65°	20669	15316	11809
70°	18586	13567	10489
75°	17024	11753	9644
80°	14821	9428	9428
85°	10745	8503	4483

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 37434 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.8	2.6
10°-20°	662.3	7.7
20°-30°	1023.8	11.8
30°-40°	1231.4	14.2
40°-50°	1105.7	12.8
50°-60°	740.7	8.6
60°-70°	430.9	5.0
70°-80°	221.3	2.6
80°-90°	55.1	0.6
90°-100°	180.4	2.1
100°-110°	597.9	6.9
110°-120°	593.4	6.9
120°-130°	483.3	5.6
130°-140°	392.8	4.5
140°-150°	305.1	3.5
150°-160°	219.8	2.5
160°-170°	134.6	1.6
170°-180°	45.5	0.5
0°-30°	1914.9	22.1
0°-40°	3146.2	36.4
0°-60°	4992.6	57.7
0°-90°	5699.8	65.9
90°-120°	1371.7	15.9
90°-150°	2552.9	29.5
90°-180°	2953.0	34.1
0°-180°	8652.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2369	2369	2369	2369	2369	
5°	2357	2397	2372	2377	2401	225
15°	2309	2403	2321	2328	2340	648
25°	2125	2210	2186	2267	2328	980
35°	1901	1917	2062	2023	1978	1185
45°	1517	1639	1505	1268	1188	1160
55°	983	1021	821	634	582	883
65°	541	553	401	326	309	547
75°	273	266	188	159	155	290
85°	58	46	46	31	24	72
90°	0	1	3	4	4	3
95°	26	76	327	117	78	29
105°	105	149	598	1129	1056	110
115°	187	223	482	1003	1173	184
125°	261	290	473	788	929	232
135°	312	344	469	676	763	241
145°	362	389	468	582	637	227
155°	414	428	471	520	539	191
165°	454	459	473	492	497	128
175°	475	475	476	479	478	45
180°	477	477	477	477	477	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2369.2	2369.2	2369.2	2369.2	2369.2
2.5°	2359.5	2387.8	2361.4	2363.5	2369.2
5°	2357.1	2397.2	2371.6	2377.0	2400.6
7.5°	2356.6	2413.8	2401.5	2416.2	2447.4
10°	2354.7	2423.2	2415.1	2418.2	2451.3
12.5°	2343.1	2422.9	2386.1	2383.1	2401.0
15°	2308.8	2403.2	2320.9	2328.4	2340.2
17.5°	2248.4	2347.1	2268.7	2295.3	2318.5
20°	2209.8	2306.6	2243.6	2278.3	2318.5
22.5°	2175.0	2271.8	2220.4	2269.0	2324.3
25°	2125.2	2210.3	2185.6	2266.7	2328.1
27.5°	2073.1	2123.1	2152.3	2261.0	2304.0
30°	2028.6	2061.7	2134.9	2229.5	2246.0
32.5°	1980.3	2000.2	2111.7	2161.0	2139.7
35°	1900.6	1917.2	2062.5	2022.8	1977.9
37.5°	1806.0	1840.0	1951.8	1837.7	1786.2
40°	1736.4	1793.1	1857.2	1686.8	1627.7
42.5°	1651.4	1742.1	1731.6	1514.5	1442.3
45°	1516.7	1639.4	1504.6	1268.5	1188.2
47.5°	1357.7	1483.8	1263.1	1052.2	977.1
50°	1253.4	1355.0	1118.2	920.7	838.0
52.5°	1147.2	1220.4	994.5	797.2	722.1
55°	982.9	1020.7	821.1	634.0	582.0
57.5°	832.2	856.3	670.9	512.1	473.8
60°	741.4	758.0	572.4	448.5	417.8
62.5°	658.3	671.1	493.2	394.6	371.4
65°	541.0	552.8	400.9	325.7	309.1
67.5°	447.8	453.9	329.9	270.6	255.0
70°	393.7	396.0	287.4	234.0	222.2
72.5°	345.4	342.0	246.8	203.2	195.1
75°	272.9	265.8	188.4	159.3	154.6
77.5°	203.8	196.3	132.3	122.7	122.7
80°	159.4	149.9	101.4	101.4	101.4
82.5°	118.8	105.6	78.2	78.2	76.3
85°	58.0	46.2	45.9	31.2	24.2
87.5°	15.5	15.6	6.4	6.6	6.6
90°	0.0	1.0	3.0	3.9	3.9
92.5°	7.9	30.5	89.9	29.1	24.5
95°	25.7	75.9	326.8	116.6	78.0
97.5°	47.2	99.7	570.5	332.7	210.3
100°	62.2	112.4	660.6	567.4	376.2
102.5°	78.8	127.5	655.0	867.1	655.0
105°	104.7	149.1	598.4	1128.9	1055.5
107.5°	131.1	170.7	544.1	1155.5	1211.3
110°	146.1	185.7	516.4	1129.2	1242.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	161.9	200.7	499.8	1082.5	1226.4
115°	186.6	223.3	481.9	1003.1	1173.0
117.5°	211.1	243.7	475.3	927.3	1105.5
120°	226.1	258.0	473.0	879.8	1052.6
122.5°	239.5	270.6	473.0	840.7	1000.4
125°	260.7	289.6	473.0	788.2	929.1
127.5°	278.1	306.4	471.8	748.4	868.9
130°	288.3	318.3	471.0	725.2	833.4
132.5°	297.8	328.5	470.2	706.0	803.3
135°	312.0	343.9	469.0	676.4	763.3
137.5°	327.4	358.1	467.8	647.7	724.4
140°	337.7	367.6	467.0	628.6	699.1
142.5°	347.2	376.3	467.8	609.5	672.2
145°	362.4	389.4	468.0	581.8	636.9
147.5°	378.8	401.4	468.2	558.4	599.4
150°	389.0	409.3	469.0	544.8	579.6
152.5°	398.5	418.0	469.8	533.6	561.4
155°	413.7	428.2	471.0	519.8	539.1
157.5°	428.5	439.7	472.2	510.0	523.7
160°	436.4	446.1	473.0	502.8	513.4
162.5°	444.3	451.7	473.0	498.0	506.3
165°	454.2	459.0	473.0	491.8	496.7
167.5°	463.3	465.8	474.0	486.3	488.8
170°	468.0	469.0	474.0	483.8	484.8
172.5°	471.2	472.2	474.7	481.5	481.7
175°	474.9	474.9	475.9	478.9	477.9
177.5°	476.9	476.9	476.1	477.7	476.1
180°	476.9	476.9	476.9	476.9	476.9



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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	20.81	21.78	21.63	22.61	23.64	17.54	18.50	18.36	19.34	20.37
	3H	22.05	22.92	22.89	23.76	24.82	18.61	19.47	19.44	20.32	21.37
	4H	22.51	23.32	23.36	24.17	25.24	19.02	19.83	19.87	20.68	21.75
	6H	22.83	23.58	23.69	24.44	25.52	19.35	20.10	20.21	20.96	22.04
	8H	22.92	23.63	23.79	24.51	25.59	19.44	20.15	20.31	21.03	22.11
	12H	22.95	23.63	23.83	24.50	25.60	19.45	20.13	20.33	21.00	22.11
4H	2H	20.90	21.72	21.76	22.57	23.64	18.12	18.93	18.97	19.78	20.85
	3H	22.39	23.06	23.25	23.94	25.02	19.40	20.07	20.26	20.95	22.03
	4H	22.99	23.60	23.86	24.48	25.59	19.91	20.52	20.78	21.40	22.51
	6H	23.44	23.97	24.33	24.87	25.99	20.35	20.87	21.24	21.78	22.89
	8H	23.58	24.07	24.47	24.97	26.09	20.47	20.96	21.37	21.86	22.99
	12H	23.64	24.08	24.55	24.99	26.13	20.50	20.94	21.41	21.86	22.99
8H	4H	23.02	23.51	23.91	24.41	25.53	20.22	20.71	21.11	21.61	22.74
	6H	23.57	23.98	24.49	24.92	26.04	20.76	21.16	21.68	22.10	23.23
	8H	23.77	24.13	24.70	25.06	26.20	20.94	21.30	21.87	22.24	23.38
	12H	23.88	24.19	24.81	25.12	26.31	21.01	21.33	21.94	22.25	23.45
12H	4H	22.98	23.42	23.89	24.34	25.47	20.24	20.68	21.15	21.60	22.73
	6H	23.56	23.92	24.49	24.85	25.99	20.82	21.18	21.75	22.11	23.25
	8H	23.77	24.09	24.71	25.02	26.21	21.03	21.35	21.96	22.27	23.47