

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: P854027

Luminaire Tested: SQ2-PH1-075U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854027
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-075U-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

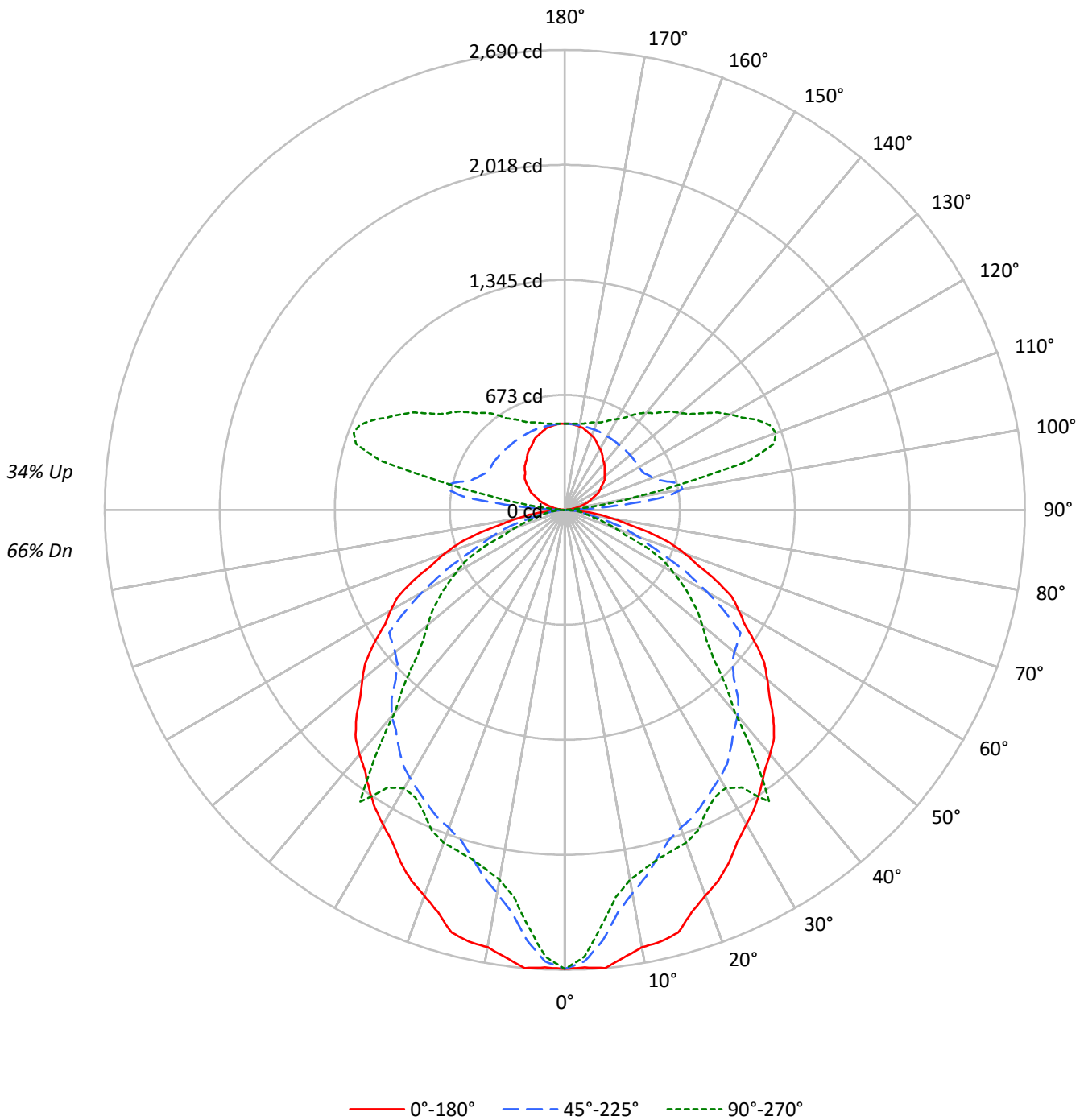
Lumens per Lamp: N/A
Luminaire Lumens: 9062.5 lumens
Efficiency: N/A
Efficacy: 125.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	70	70	70	66				
1	102	97	93	90	95	92	88	85	81	79	76	72	70	68	63	61	60	56				
2	93	85	79	74	87	80	75	70	71	67	64	63	60	57	55	53	51	47				
3	85	75	68	62	79	71	64	59	63	58	54	56	52	48	49	46	44	40				
4	78	67	59	52	73	63	56	50	56	50	46	50	45	42	44	41	38	34				
5	71	59	51	45	67	56	49	43	50	44	40	45	40	36	40	36	33	30				
6	66	53	45	39	62	51	43	38	46	39	35	41	36	32	36	32	29	26				
7	61	48	40	35	57	46	39	33	41	35	31	37	32	28	33	29	26	23				
8	57	44	36	31	53	42	35	30	38	32	27	34	29	25	30	26	23	21				
9	53	40	33	27	50	38	31	27	35	29	25	31	26	23	28	24	21	19				
10	49	37	30	25	46	35	29	24	32	26	22	29	24	21	26	22	19	17				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	43348	43348	43348
5°	43598	40989	39623
10°	42594	37316	36018
15°	42786	35101	35313
20°	41259	34017	35598
25°	40504	33859	34769
30°	39625	33767	35054
35°	39324	33384	41086
40°	39359	33167	32574
45°	39372	31905	28056
50°	38821	32533	26309
55°	38328	35308	25242
60°	37946	30935	23676
65°	37280	25081	20592
70°	35212	21347	14715
75°	31391	16095	11154
80°	25653	10451	10451
85°	16098	9466	7095

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 39372 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.2	2.6
10°-20°	621.4	6.9
20°-30°	911.2	10.1
30°-40°	1103.4	12.2
40°-50°	1085.1	12.0
50°-60°	944.6	10.4
60°-70°	656.7	7.2
70°-80°	311.3	3.4
80°-90°	69.1	0.8
90°-100°	190.8	2.1
100°-110°	632.4	7.0
110°-120°	627.7	6.9
120°-130°	511.3	5.6
130°-140°	415.5	4.6
140°-150°	322.7	3.6
150°-160°	232.5	2.6
160°-170°	142.4	1.6
170°-180°	48.1	0.5
0°-30°	1768.8	19.5
0°-40°	2872.3	31.7
0°-60°	4901.9	54.1
0°-90°	5939.1	65.5
90°-120°	1450.9	16.0
90°-150°	2700.4	29.8
90°-180°	3123.0	34.5
0°-180°	9062.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2685	2685	2685	2685	2685	
5°	2690	2688	2529	2450	2445	253
15°	2560	2280	2100	2085	2113	714
25°	2274	1934	1901	1959	1952	1046
35°	1995	1613	1694	1840	2084	1250
45°	1724	1277	1397	1446	1229	1325
55°	1362	994	1254	904	897	1216
65°	976	684	656	539	539	959
75°	503	348	258	184	179	533
85°	87	57	51	41	38	116
90°	0	1	3	4	4	4
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°	2684.8	2684.8	2684.8	2684.8	2684.8
2.5°	2678.7	2706.7	2644.0	2619.4	2615.4
5°	2690.0	2687.5	2529.0	2449.7	2444.7
7.5°	2640.9	2563.5	2374.2	2286.8	2282.8
10°	2598.0	2480.6	2276.1	2196.9	2196.9
12.5°	2587.8	2402.4	2196.4	2137.9	2149.9
15°	2559.7	2279.9	2099.9	2085.1	2112.6
17.5°	2466.7	2165.5	2024.7	2058.2	2090.1
20°	2401.3	2104.1	1979.8	2041.8	2071.8
22.5°	2346.1	2044.9	1947.1	2014.9	2030.9
25°	2273.6	1933.9	1900.6	1959.2	1951.7
27.5°	2186.7	1832.0	1854.1	1890.0	1894.5
30°	2125.4	1770.7	1811.2	1847.7	1880.2
32.5°	2066.1	1699.5	1764.2	1850.7	1925.1
35°	1995.1	1613.0	1693.7	1839.7	2084.5
37.5°	1920.5	1510.9	1622.7	1745.5	1823.4
40°	1867.4	1437.8	1573.6	1725.4	1545.5
42.5°	1810.2	1380.5	1500.0	1696.0	1392.2
45°	1724.3	1277.2	1397.3	1446.1	1228.7
47.5°	1623.2	1197.0	1327.9	1205.9	1120.9
50°	1545.5	1143.4	1295.2	1102.3	1047.4
52.5°	1469.9	1087.7	1272.7	1016.9	979.9
55°	1361.6	994.4	1254.3	904.1	896.7
57.5°	1246.6	899.4	1109.2	806.0	819.0
60°	1175.1	837.9	958.0	748.1	733.2
62.5°	1099.5	778.3	816.9	674.6	659.6
65°	975.8	683.6	656.5	539.0	539.0
67.5°	839.9	585.2	531.9	441.1	381.1
70°	745.9	521.1	452.2	351.6	311.7
72.5°	645.8	453.0	370.4	288.1	242.2
75°	503.2	348.4	258.0	183.8	178.8
77.5°	363.8	250.9	173.7	136.4	136.9
80°	275.9	191.0	112.4	109.9	112.4
82.5°	194.1	131.2	83.8	87.4	87.9
85°	86.9	56.9	51.1	40.8	38.3
87.5°	18.4	16.6	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	21.75	22.76	22.56	23.59	24.63	20.42	21.43	21.24	22.27	23.30
	3H	23.79	24.69	24.61	25.54	26.59	21.47	22.37	22.29	23.22	24.28
	4H	24.52	25.38	25.37	26.23	27.30	21.69	22.54	22.53	23.39	24.46
	6H	25.02	25.80	25.87	26.66	27.75	21.84	22.63	22.70	23.49	24.57
	8H	25.15	25.90	26.01	26.77	27.86	21.88	22.63	22.74	23.50	24.59
	12H	25.20	25.91	26.07	26.78	27.89	21.88	22.59	22.75	23.46	24.57
4H	2H	22.14	23.00	22.99	23.85	24.92	21.08	21.94	21.93	22.79	23.86
	3H	24.26	24.97	25.12	25.86	26.94	22.28	22.99	23.14	23.87	24.96
	4H	25.09	25.73	25.96	26.61	27.73	22.56	23.20	23.43	24.09	25.20
	6H	25.68	26.24	26.57	27.14	28.26	22.77	23.33	23.66	24.24	25.35
	8H	25.85	26.37	26.74	27.27	28.40	22.83	23.35	23.73	24.25	25.38
	12H	25.93	26.39	26.84	27.31	28.45	22.85	23.32	23.76	24.24	25.37
8H	4H	25.11	25.63	26.00	26.53	27.66	22.79	23.31	23.68	24.21	25.33
	6H	25.77	26.20	26.69	27.14	28.27	23.06	23.49	23.98	24.44	25.56
	8H	26.00	26.38	26.93	27.31	28.46	23.17	23.55	24.10	24.48	25.63
	12H	26.12	26.45	27.05	27.38	28.58	23.22	23.55	24.15	24.48	25.68
12H	4H	25.07	25.54	25.98	26.46	27.60	22.79	23.26	23.70	24.18	25.31
	6H	25.75	26.13	26.67	27.06	28.21	23.10	23.48	24.02	24.41	25.56
	8H	25.99	26.32	26.92	27.25	28.45	23.22	23.55	24.15	24.48	25.68