

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: P854050

Luminaire Tested: SQ2-PH1-100U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854050
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-100U-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

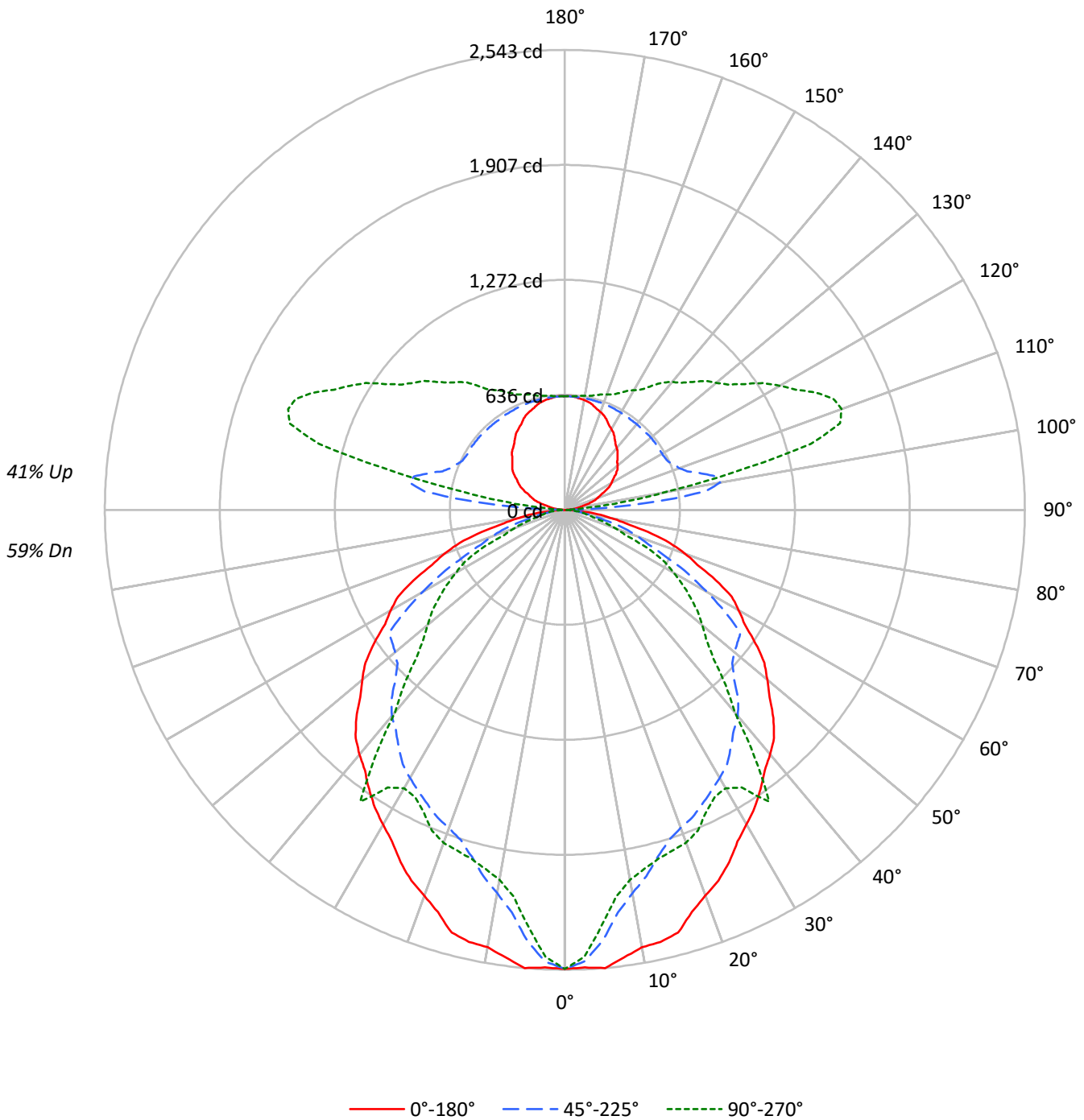
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9529.3 lumens
Efficiency: N/A
Efficacy: 116.5 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: General Diffuse

Input Watts (W): 81.8
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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	100	96	92	88	93	90	86	83	78	75	73	67	65	64	57	56	55	50
2	91	84	78	73	85	79	73	69	68	64	61	59	56	54	51	48	47	42
3	83	74	67	61	78	69	63	57	61	55	51	52	49	45	45	42	40	36
4	76	65	58	51	71	61	54	49	54	48	44	47	43	39	40	37	34	31
5	70	58	50	44	65	55	48	42	48	42	38	42	37	34	36	33	30	27
6	65	52	44	38	60	49	42	37	44	38	33	38	33	30	33	29	26	24
7	60	47	39	34	56	45	37	32	40	34	29	35	30	26	30	26	23	21
8	56	43	35	30	52	41	34	29	36	30	26	32	27	24	28	24	21	19
9	52	39	32	27	48	37	30	26	33	27	23	29	25	21	26	22	19	17
10	48	36	29	24	45	34	28	23	31	25	21	27	22	19	24	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	40981	40981	40981
5°	41217	38751	37459
10°	40268	35279	34051
15°	40450	33183	33386
20°	39007	32160	33653
25°	38291	32010	32870
30°	37461	31923	33139
35°	37178	31560	38843
40°	37209	31356	30795
45°	37223	30163	26524
50°	36701	30755	24872
55°	36234	33380	23862
60°	35873	29243	22381
65°	35247	23713	19469
70°	33291	20181	13907
75°	29682	15215	10549
80°	24249	9884	9884
85°	15209	8948	6706

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 37223 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.3	2.3
10°-20°	587.5	6.2
20°-30°	861.4	9.0
30°-40°	1043.2	10.9
40°-50°	1025.8	10.8
50°-60°	893.0	9.4
60°-70°	620.8	6.5
70°-80°	294.4	3.1
80°-90°	66.0	0.7
90°-100°	262.6	2.8
100°-110°	794.4	8.3
110°-120°	775.4	8.1
120°-130°	633.7	6.6
130°-140°	517.2	5.4
140°-150°	402.6	4.2
150°-160°	290.3	3.0
160°-170°	177.7	1.9
170°-180°	60.0	0.6
0°-30°	1672.2	17.5
0°-40°	2715.4	28.5
0°-60°	4634.2	48.6
0°-90°	5615.4	58.9
90°-120°	1832.4	19.2
90°-150°	3386.0	35.5
90°-180°	3914.0	41.1
0°-180°	9529.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2538	2538	2538	2538	2538	
5°	2543	2541	2391	2316	2311	239
15°	2420	2155	1985	1971	1997	675
25°	2149	1828	1797	1852	1845	988
35°	1886	1525	1601	1739	1971	1181
45°	1630	1208	1321	1367	1162	1253
55°	1287	940	1186	855	848	1150
65°	923	646	621	510	510	907
75°	476	329	244	174	169	504
85°	82	54	48	39	36	110
90°	0	2	12	7	6	4
95°	33	103	496	183	116	39
105°	138	194	780	1481	1408	145
115°	246	293	631	1305	1533	243
125°	344	381	622	1031	1213	305
135°	412	455	618	889	1000	319
145°	481	516	618	765	836	301
155°	548	566	622	686	712	252
165°	599	606	625	649	656	169
175°	627	627	628	633	631	59
180°	629	629	629	629	629	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2538.2	2538.2	2538.2	2538.2	2538.2
2.5°	2532.4	2558.9	2499.6	2476.3	2472.5
5°	2543.1	2540.7	2390.9	2315.9	2311.2
7.5°	2496.7	2423.5	2244.6	2161.9	2158.1
10°	2456.1	2345.1	2151.8	2076.9	2076.9
12.5°	2446.5	2271.2	2076.5	2021.2	2032.5
15°	2419.9	2155.4	1985.2	1971.3	1997.3
17.5°	2332.0	2047.2	1914.2	1945.8	1976.0
20°	2270.2	1989.1	1871.7	1930.3	1958.6
22.5°	2218.0	1933.2	1840.8	1904.9	1920.0
25°	2149.4	1828.3	1796.8	1852.2	1845.1
27.5°	2067.3	1732.0	1752.8	1786.8	1791.0
30°	2009.3	1674.0	1712.3	1746.8	1777.5
32.5°	1953.3	1606.6	1667.8	1749.6	1820.0
35°	1886.2	1524.9	1601.2	1739.3	1970.7
37.5°	1815.6	1428.4	1534.0	1650.2	1723.9
40°	1765.4	1359.2	1487.7	1631.1	1461.1
42.5°	1711.3	1305.1	1418.1	1603.3	1316.2
45°	1630.2	1207.5	1321.0	1367.1	1161.6
47.5°	1534.5	1131.7	1255.3	1140.0	1059.7
50°	1461.1	1080.9	1224.4	1042.1	990.2
52.5°	1389.6	1028.3	1203.2	961.4	926.4
55°	1287.2	940.1	1185.8	854.8	847.7
57.5°	1178.5	850.3	1048.6	762.0	774.3
60°	1110.9	792.1	905.6	707.3	693.1
62.5°	1039.4	735.8	772.3	637.7	623.6
65°	922.6	646.3	620.7	509.6	509.6
67.5°	794.1	553.2	502.8	417.0	360.3
70°	705.2	492.7	427.5	332.4	294.6
72.5°	610.5	428.2	350.2	272.4	228.9
75°	475.8	329.4	243.9	173.8	169.1
77.5°	343.9	237.2	164.2	129.0	129.4
80°	260.8	180.5	106.3	103.9	106.3
82.5°	183.5	124.0	79.2	82.6	83.1
85°	82.1	53.8	48.3	38.6	36.2
87.5°	17.4	15.9	12.0	11.0	10.8
90°	0.0	1.9	11.8	6.9	5.9
92.5°	11.1	44.7	160.3	53.2	38.3
95°	32.6	103.0	495.6	183.1	115.5
97.5°	63.0	131.1	781.1	516.9	314.7
100°	81.9	148.5	872.7	843.7	566.7
102.5°	103.3	167.6	853.8	1183.4	943.4
105°	138.2	194.2	779.9	1481.2	1407.8
107.5°	171.4	224.9	708.9	1510.7	1595.6
110°	193.5	244.7	673.3	1473.5	1628.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	214.8	264.4	652.0	1411.3	1606.7
115°	245.8	293.1	630.9	1305.4	1533.2
117.5°	276.6	321.4	623.4	1206.2	1439.4
120°	297.2	339.6	621.0	1148.3	1372.3
122.5°	316.1	356.3	621.0	1097.4	1304.4
125°	343.6	381.2	622.0	1030.9	1213.3
127.5°	365.9	404.9	621.0	980.7	1136.3
130°	380.1	420.6	621.0	952.0	1092.9
132.5°	392.7	434.0	620.2	925.7	1055.8
135°	411.7	455.1	618.0	889.1	1000.1
137.5°	432.8	474.1	618.0	850.0	952.9
140°	446.2	486.8	618.0	824.6	922.1
142.5°	459.7	498.7	617.2	801.4	886.6
145°	480.8	516.5	618.0	764.8	836.2
147.5°	501.9	532.2	619.2	734.6	789.4
150°	515.4	543.3	620.0	717.8	764.1
152.5°	528.0	552.9	620.8	703.4	741.2
155°	547.9	566.3	622.0	685.8	711.8
157.5°	565.3	580.2	623.2	672.7	690.9
160°	575.6	588.1	623.9	664.7	678.2
162.5°	585.8	595.3	624.7	657.6	668.8
165°	599.3	606.0	624.9	648.8	656.5
167.5°	610.7	614.2	626.1	642.0	645.3
170°	617.0	619.0	626.9	638.8	639.7
172.5°	621.0	622.1	626.9	635.6	635.8
175°	626.9	626.9	627.9	632.8	630.9
177.5°	629.7	628.9	628.1	630.4	628.9
180°	628.9	628.9	628.9	628.9	628.9



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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	21.02	21.95	21.89	22.85	23.99	19.69	20.63	20.57	21.53	22.66
	3H	23.05	23.89	23.94	24.79	25.96	20.73	21.57	21.62	22.48	23.64
	4H	23.78	24.58	24.69	25.49	26.66	20.95	21.74	21.85	22.65	23.83
	6H	24.27	25.00	25.19	25.92	27.11	21.10	21.83	22.01	22.75	23.93
	8H	24.40	25.09	25.32	26.03	27.22	21.13	21.83	22.06	22.76	23.95
	12H	24.45	25.11	25.38	26.04	27.25	21.13	21.79	22.06	22.72	23.93
4H	2H	21.40	22.19	22.31	23.11	24.28	20.34	21.13	21.25	22.05	23.22
	3H	23.51	24.17	24.44	25.12	26.31	21.53	22.19	22.45	23.13	24.32
	4H	24.33	24.93	25.27	25.87	27.09	21.81	22.41	22.74	23.35	24.56
	6H	24.92	25.44	25.87	26.40	27.62	22.02	22.54	22.97	23.50	24.71
	8H	25.09	25.58	26.04	26.53	27.76	22.08	22.56	23.03	23.52	24.75
	12H	25.17	25.60	26.13	26.58	27.81	22.09	22.52	23.06	23.50	24.73
8H	4H	24.36	24.84	25.31	25.80	27.03	22.03	22.51	22.98	23.47	24.70
	6H	25.01	25.41	25.99	26.41	27.64	22.30	22.70	23.28	23.70	24.93
	8H	25.24	25.59	26.22	26.58	27.82	22.41	22.76	23.39	23.75	24.99
	12H	25.35	25.66	26.34	26.65	27.94	22.45	22.76	23.44	23.75	25.04
12H	4H	24.31	24.75	25.28	25.72	26.96	22.03	22.46	23.00	23.44	24.67
	6H	24.99	25.34	25.97	26.33	27.57	22.33	22.69	23.32	23.68	24.92
	8H	25.22	25.53	26.21	26.51	27.81	22.45	22.76	23.44	23.74	25.04