

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: P854014

Luminaire Tested: SQ2-PH1-050U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854014
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-050U-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

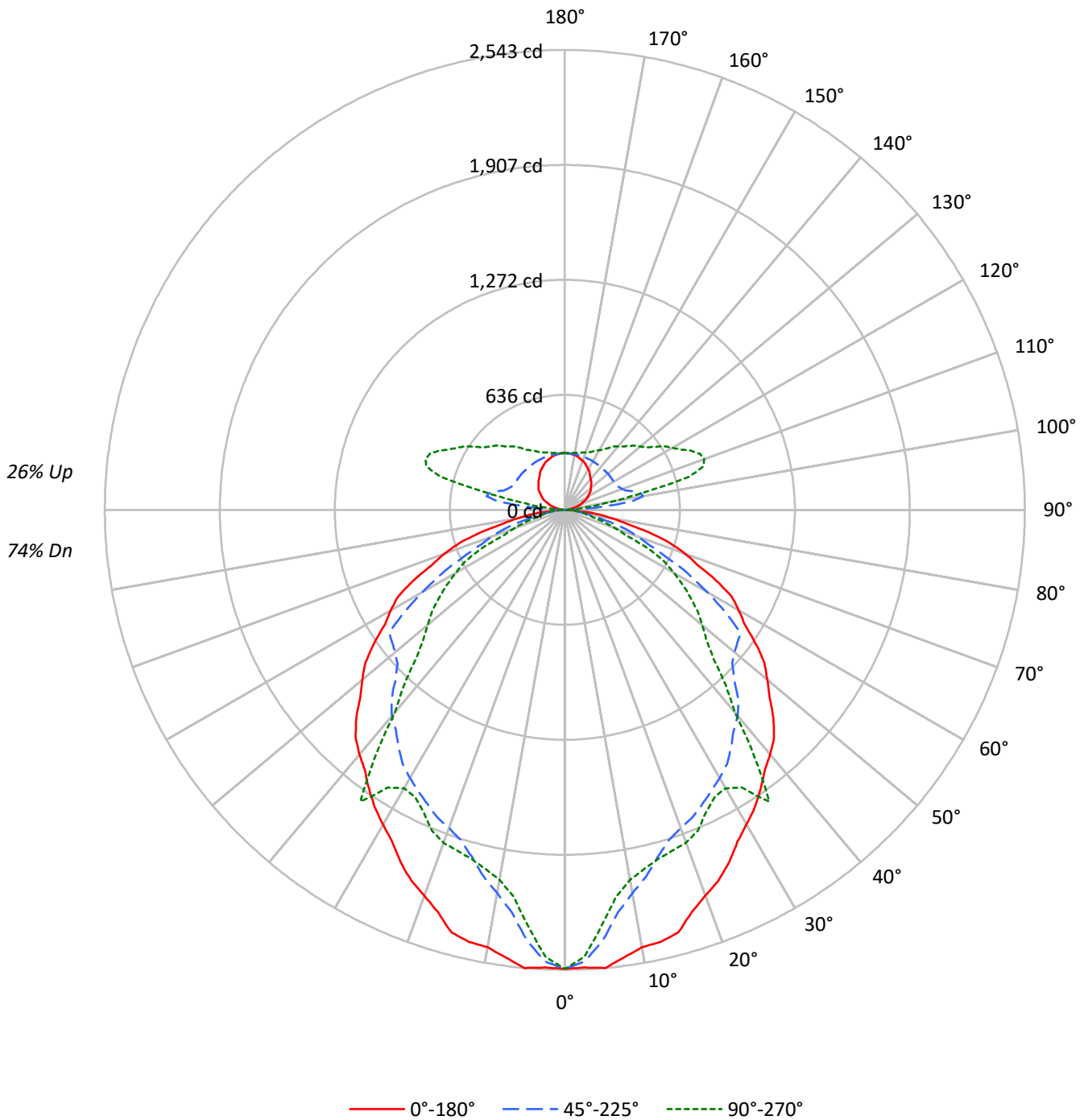
Lumens per Lamp: N/A
Luminaire Lumens: 7564.6 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64
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				
RC	80					70					50					30				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	113	113	113	113	107	107	107	107	97	97	97	87	87	87	78	78	78	74		
1	104	99	95	92	98	94	91	88	86	83	80	77	75	74	70	68	67	63		
2	95	87	81	75	90	83	77	73	75	71	67	68	65	62	62	59	57	53		
3	86	77	69	63	82	73	66	61	67	61	57	61	56	52	55	51	48	45		
4	79	68	60	54	75	65	58	52	59	53	48	54	49	45	49	45	42	39		
5	73	61	52	46	69	58	51	45	53	47	42	49	43	39	44	40	37	34		
6	67	55	46	40	64	52	45	39	48	42	37	44	39	35	40	36	32	30		
7	62	50	41	36	59	48	40	35	44	37	33	40	35	31	37	32	29	26		
8	58	45	37	32	55	43	36	31	40	34	29	37	31	27	34	29	26	24		
9	54	41	34	28	51	40	33	28	37	31	26	34	29	25	31	27	23	21		
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	29	25	21	19		

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	3.0
10°-20°	587.5	7.8
20°-30°	861.4	11.4
30°-40°	1043.2	13.8
40°-50°	1025.8	13.6
50°-60°	893.0	11.8
60°-70°	620.8	8.2
70°-80°	294.4	3.9
80°-90°	65.3	0.9
90°-100°	125.1	1.7
100°-110°	396.7	5.2
110°-120°	389.0	5.1
120°-130°	316.5	4.2
130°-140°	258.1	3.4
140°-150°	201.2	2.7
150°-160°	145.0	1.9
160°-170°	88.6	1.2
170°-180°	29.9	0.4
0°-30°	1672.2	22.1
0°-40°	2715.4	35.9
0°-60°	4634.2	61.3
0°-90°	5614.7	74.2
90°-120°	910.7	12.0
90°-150°	1686.5	22.3
90°-180°	1950.0	25.8
0°-180°	7564.6	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	1	3	3	3	3
95°	17	51	227	84	54	19
105°	69	97	391	745	714	73
115°	123	147	316	656	772	122
125°	171	191	311	515	606	152
135°	206	227	309	443	499	159
145°	241	259	309	382	416	151
155°	274	284	310	341	354	127
165°	299	302	311	323	326	84
175°	313	312	313	315	314	30
180°	314	314	314	314	314	



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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	15.7	10.3	10.3	10.3
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.5	21.9	70.1	23.3	16.4
95°	16.8	50.6	227.1	84.2	54.3
97.5°	31.2	65.6	384.7	240.4	147.5
100°	41.5	74.3	438.4	399.7	259.7
102.5°	52.5	83.8	428.9	587.0	449.3
105°	69.1	97.1	391.0	744.8	713.9
107.5°	85.7	111.6	354.9	761.3	803.0
110°	96.8	121.9	336.7	742.3	819.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	107.8	131.4	326.4	709.6	807.7
115°	123.4	146.6	316.0	656.3	772.2
117.5°	138.6	160.6	311.8	605.0	721.8
120°	148.1	169.4	311.0	573.3	686.3
122.5°	157.6	178.1	311.0	547.8	653.1
125°	170.8	191.1	311.0	514.6	606.3
127.5°	182.5	202.0	311.0	488.8	567.0
130°	189.6	209.9	311.0	473.6	544.1
132.5°	196.7	217.0	310.3	461.6	525.1
135°	206.4	226.6	309.1	442.7	498.7
137.5°	215.9	237.1	308.9	424.5	474.6
140°	222.2	243.4	308.1	411.8	457.2
142.5°	230.1	250.5	308.9	399.1	441.4
145°	240.9	259.3	309.1	381.9	415.7
147.5°	251.8	267.4	309.3	366.8	394.4
150°	259.7	272.2	310.1	358.0	380.2
152.5°	266.0	277.0	310.1	350.8	369.1
155°	274.5	284.2	310.1	341.0	354.5
157.5°	283.6	290.2	311.0	335.0	344.2
160°	288.3	294.1	311.0	331.0	338.7
162.5°	293.1	297.3	311.0	327.8	333.2
165°	299.2	302.1	311.0	323.0	325.9
167.5°	304.9	305.7	312.0	319.6	322.1
170°	308.1	308.1	312.0	318.0	318.9
172.5°	309.7	310.4	312.0	316.4	316.6
175°	313.0	312.1	313.0	315.0	314.0
177.5°	314.0	313.2	313.2	314.8	313.2
180°	314.0	314.0	314.0	314.0	314.0



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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	22.22	23.34	22.94	24.08	24.96	20.90	22.01	21.61	22.75	23.63
	3H	24.27	25.27	25.00	26.02	26.93	21.95	22.95	22.68	23.70	24.61
	4H	25.01	25.96	25.76	26.71	27.64	22.18	23.12	22.93	23.88	24.80
	6H	25.51	26.38	26.27	27.15	28.08	22.33	23.20	23.10	23.97	24.91
	8H	25.64	26.47	26.42	27.26	28.20	22.37	23.20	23.15	23.99	24.93
	12H	25.69	26.49	26.47	27.27	28.23	22.38	23.17	23.16	23.95	24.91
4H	2H	22.63	23.57	23.38	24.33	25.25	21.57	22.51	22.32	23.27	24.19
	3H	24.76	25.55	25.53	26.34	27.28	22.77	23.56	23.54	24.35	25.29
	4H	25.59	26.30	26.37	27.09	28.06	23.06	23.77	23.84	24.57	25.53
	6H	26.19	26.80	26.99	27.62	28.60	23.28	23.90	24.08	24.72	25.69
	8H	26.36	26.94	27.16	27.75	28.74	23.34	23.92	24.15	24.73	25.72
	12H	26.44	26.96	27.26	27.79	28.79	23.36	23.88	24.19	24.72	25.71
8H	4H	25.62	26.20	26.43	27.01	28.00	23.29	23.87	24.10	24.68	25.67
	6H	26.29	26.76	27.12	27.62	28.61	23.58	24.05	24.41	24.91	25.90
	8H	26.51	26.94	27.36	27.79	28.79	23.68	24.10	24.53	24.96	25.96
	12H	26.64	27.01	27.49	27.85	28.92	23.74	24.11	24.58	24.95	26.02
12H	4H	25.59	26.10	26.41	26.94	27.93	23.30	23.82	24.13	24.66	25.65
	6H	26.26	26.68	27.11	27.54	28.54	23.61	24.03	24.45	24.89	25.89
	8H	26.51	26.88	27.35	27.72	28.78	23.74	24.11	24.58	24.95	26.01