

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: P855155

Luminaire Tested: SQ2-PH1-100U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855155
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-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

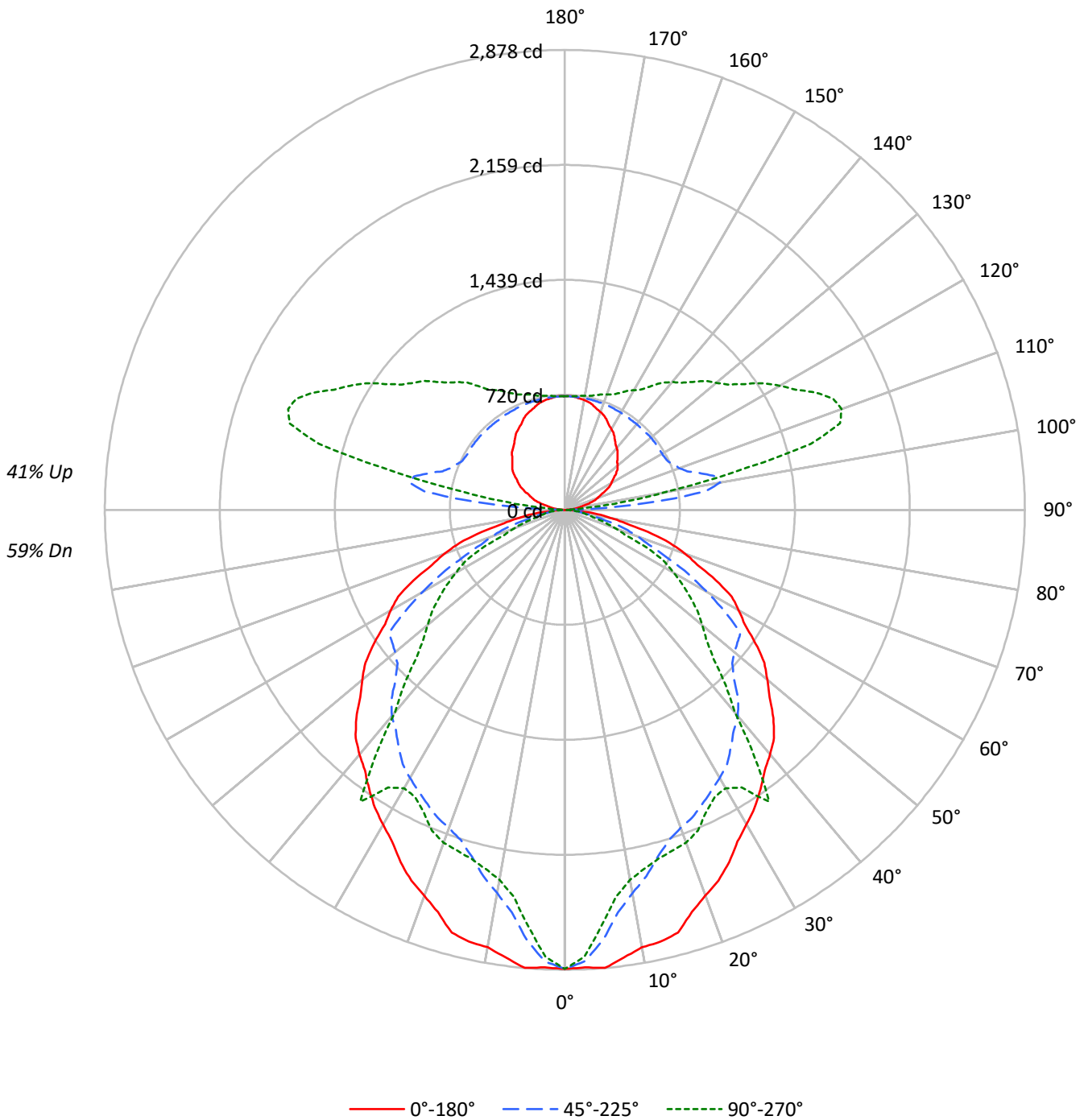
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10784.0 lumens
Efficiency: N/A
Efficacy: 131.8 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°	46377	46377	46377
5°	46644	43853	42391
10°	45570	39923	38535
15°	45775	37553	37782
20°	44142	36393	38084
25°	43333	36225	37198
30°	42394	36126	37502
35°	42072	35715	43958
40°	42107	35485	34851
45°	42124	34134	30015
50°	41533	34804	28148
55°	41005	37774	27004
60°	40597	33093	25330
65°	39889	26835	22032
70°	37671	22839	15739
75°	33587	17218	11940
80°	27438	11186	11186
85°	17210	10133	7595

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 42124 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.7	2.3
10°-20°	664.8	6.2
20°-30°	974.8	9.0
30°-40°	1180.5	10.9
40°-50°	1160.9	10.8
50°-60°	1010.6	9.4
60°-70°	702.6	6.5
70°-80°	333.1	3.1
80°-90°	74.7	0.7
90°-100°	297.2	2.8
100°-110°	898.9	8.3
110°-120°	877.5	8.1
120°-130°	717.1	6.6
130°-140°	585.3	5.4
140°-150°	455.7	4.2
150°-160°	328.5	3.0
160°-170°	201.1	1.9
170°-180°	67.9	0.6
0°-30°	1892.4	17.5
0°-40°	3072.9	28.5
0°-60°	5244.4	48.6
0°-90°	6354.8	58.9
90°-120°	2073.7	19.2
90°-150°	3831.8	35.5
90°-180°	4429.0	41.1
0°-180°	10784.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2872	2872	2872	2872	2872	
5°	2878	2875	2706	2621	2616	271
15°	2738	2439	2247	2231	2260	763
25°	2432	2069	2033	2096	2088	1119
35°	2134	1726	1812	1968	2230	1337
45°	1845	1366	1495	1547	1314	1418
55°	1457	1064	1342	967	959	1301
65°	1044	731	702	577	577	1026
75°	538	373	276	197	191	571
85°	93	61	55	44	41	124
90°	0	2	13	8	7	4
95°	37	117	561	207	131	44
105°	156	220	883	1676	1593	164
115°	278	332	714	1477	1735	275
125°	389	431	704	1167	1373	345
135°	466	515	699	1006	1132	361
145°	544	584	699	866	946	341
155°	620	641	704	776	806	285
165°	678	686	707	734	743	191
175°	709	709	711	716	714	67
180°	712	712	712	712	712	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2872.4	2872.4	2872.4	2872.4	2872.4
2.5°	2865.8	2895.8	2828.7	2802.3	2798.0
5°	2877.9	2875.2	2705.7	2620.8	2615.5
7.5°	2825.4	2742.6	2540.1	2446.5	2442.2
10°	2779.5	2653.9	2435.1	2350.4	2350.4
12.5°	2768.6	2570.2	2349.9	2287.3	2300.1
15°	2738.5	2439.2	2246.6	2230.8	2260.3
17.5°	2639.0	2316.7	2166.2	2202.0	2236.2
20°	2569.1	2251.0	2118.1	2184.5	2216.5
22.5°	2510.0	2187.7	2083.2	2155.7	2172.8
25°	2432.4	2069.0	2033.4	2096.1	2088.0
27.5°	2339.5	1960.0	1983.6	2022.1	2026.8
30°	2273.9	1894.4	1937.7	1976.8	2011.5
32.5°	2210.5	1818.1	1887.4	1980.0	2059.6
35°	2134.5	1725.7	1812.0	1968.3	2230.2
37.5°	2054.6	1616.5	1736.0	1867.5	1950.9
40°	1997.8	1538.2	1683.6	1845.9	1653.5
42.5°	1936.6	1476.9	1604.8	1814.4	1489.5
45°	1844.8	1366.5	1494.9	1547.1	1314.5
47.5°	1736.5	1280.7	1420.6	1290.1	1199.2
50°	1653.5	1223.2	1385.6	1179.3	1120.6
52.5°	1572.6	1163.7	1361.6	1088.0	1048.4
55°	1456.7	1063.9	1341.9	967.3	959.3
57.5°	1333.7	962.3	1186.7	862.3	876.2
60°	1257.2	896.4	1024.8	800.4	784.4
62.5°	1176.3	832.7	874.0	721.7	705.7
65°	1044.1	731.4	702.4	576.7	576.7
67.5°	898.7	626.0	569.0	471.9	407.7
70°	798.0	557.6	483.8	376.2	333.4
72.5°	690.9	484.6	396.3	308.3	259.0
75°	538.4	372.8	276.0	196.7	191.4
77.5°	389.2	268.4	185.8	146.0	146.4
80°	295.1	204.3	120.3	117.6	120.3
82.5°	207.7	140.3	89.6	93.5	94.0
85°	92.9	60.9	54.7	43.7	41.0
87.5°	19.7	18.0	13.6	12.4	12.2
90°	0.0	2.2	13.4	7.8	6.7
92.5°	12.6	50.6	181.4	60.2	43.3
95°	36.9	116.6	560.9	207.2	130.7
97.5°	71.3	148.4	883.9	585.0	356.1
100°	92.7	168.1	987.6	954.8	641.3
102.5°	116.9	189.7	966.2	1339.2	1067.6
105°	156.4	219.8	882.6	1676.2	1593.2
107.5°	194.0	254.5	802.2	1709.6	1805.7
110°	219.0	276.9	761.9	1667.5	1842.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	243.1	299.2	737.8	1597.1	1818.2
115°	278.2	331.7	714.0	1477.3	1735.1
117.5°	313.0	363.7	705.5	1365.0	1628.9
120°	336.3	384.3	702.8	1299.5	1553.0
122.5°	357.7	403.2	702.8	1241.9	1476.1
125°	388.8	431.4	703.9	1166.6	1373.0
127.5°	414.1	458.2	702.8	1109.8	1285.9
130°	430.1	476.0	702.8	1077.3	1236.8
132.5°	444.4	491.1	701.9	1047.6	1194.8
135°	465.9	515.0	699.4	1006.2	1131.8
137.5°	489.8	536.5	699.4	961.9	1078.4
140°	504.9	550.9	699.4	933.2	1043.5
142.5°	520.2	564.4	698.5	906.9	1003.3
145°	544.1	584.5	699.4	865.5	946.3
147.5°	568.0	602.3	700.7	831.3	893.3
150°	583.3	614.8	701.6	812.3	864.7
152.5°	597.5	625.7	702.5	796.0	838.8
155°	620.0	640.9	703.9	776.1	805.5
157.5°	639.7	656.6	705.3	761.3	781.9
160°	651.4	665.5	706.0	752.2	767.5
162.5°	662.9	673.7	707.0	744.2	756.9
165°	678.2	685.8	707.2	734.2	742.9
167.5°	691.1	695.1	708.5	726.5	730.3
170°	698.2	700.5	709.4	722.9	723.9
172.5°	702.8	704.0	709.4	719.3	719.5
175°	709.4	709.4	710.6	716.1	714.0
177.5°	712.6	711.7	710.8	713.4	711.7
180°	711.7	711.7	711.7	711.7	711.7



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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	21.45	22.38	22.32	23.28	24.42	20.12	21.06	21.00	21.96	23.09
	3H	23.48	24.32	24.37	25.22	26.39	21.16	22.00	22.05	22.91	24.07
	4H	24.21	25.01	25.12	25.92	27.09	21.38	22.17	22.28	23.08	24.26
	6H	24.70	25.43	25.62	26.35	27.54	21.52	22.26	22.44	23.18	24.36
	8H	24.83	25.52	25.75	26.46	27.65	21.56	22.26	22.49	23.19	24.38
	12H	24.88	25.54	25.81	26.47	27.68	21.56	22.22	22.49	23.15	24.36
4H	2H	21.83	22.62	22.74	23.54	24.71	20.77	21.56	21.68	22.48	23.65
	3H	23.94	24.60	24.87	25.55	26.74	21.96	22.62	22.88	23.56	24.75
	4H	24.76	25.36	25.70	26.30	27.52	22.24	22.84	23.17	23.78	24.99
	6H	25.35	25.87	26.30	26.83	28.05	22.45	22.97	23.39	23.93	25.14
	8H	25.52	26.01	26.47	26.96	28.19	22.51	22.99	23.46	23.95	25.18
	12H	25.59	26.03	26.56	27.00	28.24	22.52	22.95	23.49	23.93	25.16
8H	4H	24.79	25.27	25.74	26.23	27.46	22.46	22.94	23.41	23.90	25.13
	6H	25.44	25.84	26.42	26.84	28.07	22.73	23.13	23.71	24.13	25.36
	8H	25.67	26.02	26.65	27.01	28.25	22.84	23.19	23.82	24.18	25.42
	12H	25.78	26.09	26.77	27.08	28.37	22.88	23.19	23.87	24.18	25.47
12H	4H	24.74	25.18	25.71	26.15	27.39	22.46	22.89	23.43	23.87	25.10
	6H	25.42	25.77	26.40	26.76	28.00	22.76	23.12	23.75	24.10	25.35
	8H	25.65	25.96	26.64	26.94	28.24	22.88	23.19	23.87	24.17	25.47