

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: P855151

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855151
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-125U-125D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

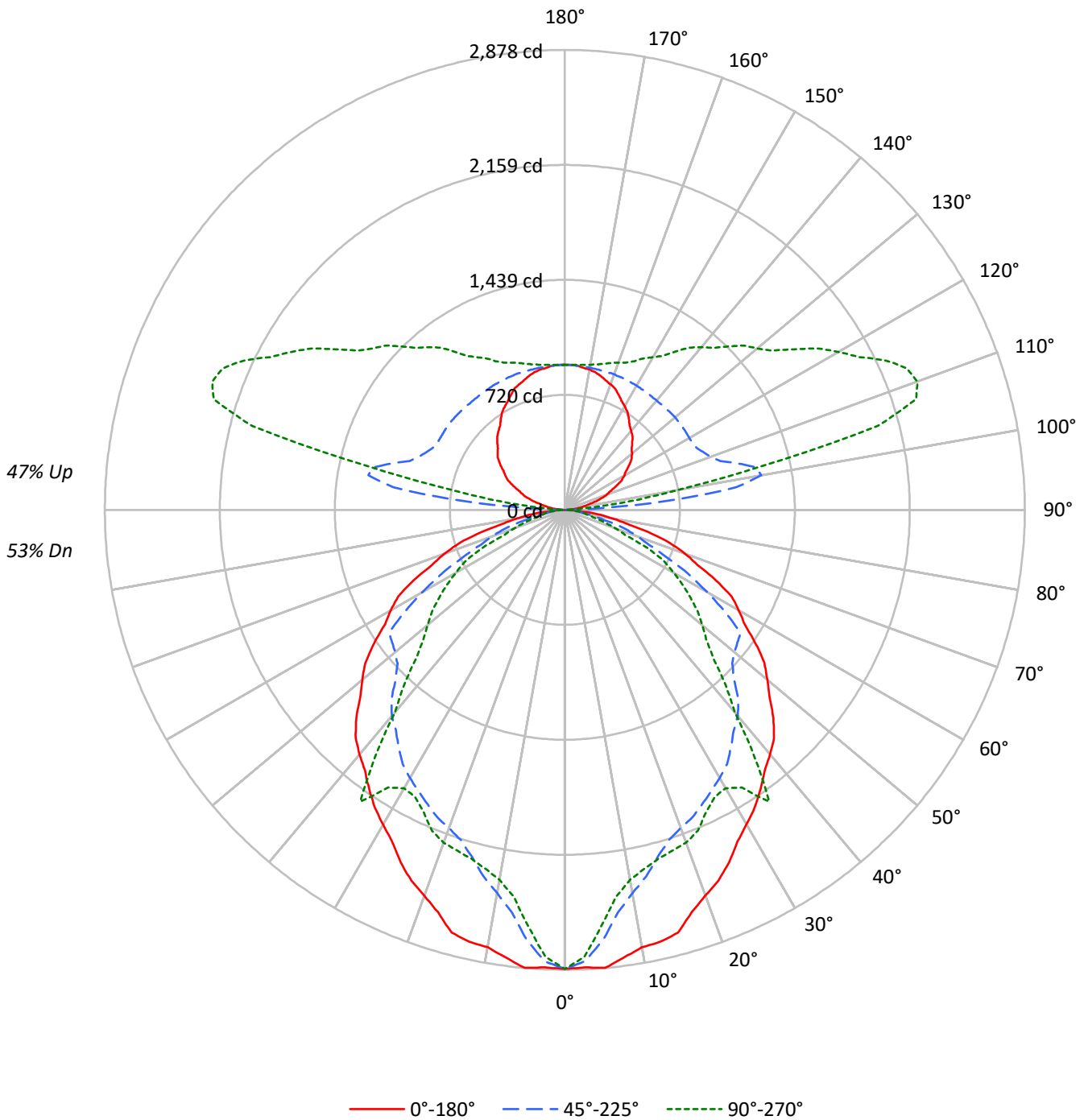
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11959.6 lumens
Efficiency: N/A
Efficacy: 128.5 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): 93.1
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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53	53	53	53	
1	99	94	91	87	91	88	84	81	75	73	70	63	62	60	53	51	50	45	45	45	45	
2	90	83	77	72	83	77	72	67	66	62	59	56	53	50	46	44	43	38	38	38	38	
3	82	73	66	60	76	68	61	56	58	53	49	49	46	43	41	39	36	32	32	32	32	
4	75	64	57	51	69	60	53	48	52	46	42	44	40	37	37	34	31	28	28	28	28	
5	69	57	49	43	64	54	46	41	46	41	36	40	35	32	33	30	27	24	24	24	24	
6	64	52	44	38	59	48	41	36	42	36	32	36	31	28	30	27	24	21	21	21	21	
7	59	47	39	33	54	44	36	31	38	32	28	33	28	25	28	24	22	19	19	19	19	
8	55	42	35	29	51	40	33	28	35	29	25	30	25	22	25	22	19	17	17	17	17	
9	51	39	31	26	47	36	30	25	32	26	22	27	23	20	23	20	17	15	15	15	15	
10	48	36	28	23	44	33	27	22	29	24	20	25	21	18	22	18	16	14	14	14	14	

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	2.1
10°-20°	664.8	5.6
20°-30°	974.8	8.2
30°-40°	1180.5	9.9
40°-50°	1160.9	9.7
50°-60°	1010.6	8.4
60°-70°	702.6	5.9
70°-80°	333.1	2.8
80°-90°	74.4	0.6
90°-100°	347.5	2.9
100°-110°	1131.4	9.5
110°-120°	1119.1	9.4
120°-130°	914.6	7.6
130°-140°	747.5	6.3
140°-150°	582.2	4.9
150°-160°	419.7	3.5
160°-170°	256.5	2.1
170°-180°	86.5	0.7
0°-30°	1892.4	15.8
0°-40°	3072.9	25.7
0°-60°	5244.4	43.9
0°-90°	6354.5	53.1
90°-120°	2598.0	21.7
90°-150°	4842.3	40.5
90°-180°	5605.0	46.9
0°-180°	11959.6	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	3	8	7	7	5
95°	47	143	637	227	140	55
105°	192	277	1121	2141	2027	205
115°	355	424	913	1882	2214	352
125°	494	551	901	1486	1751	440
135°	597	659	896	1282	1446	461
145°	697	749	894	1104	1209	436
155°	796	822	900	989	1026	366
165°	868	876	902	936	946	245
175°	905	905	905	912	910	86
180°	908	908	908	908	908	



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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	18.2	12.4	12.2	12.2
90°	0.0	3.3	7.8	6.7	6.7
92.5°	16.1	57.8	184.8	60.9	47.0
95°	47.0	143.0	636.9	227.1	139.6
97.5°	88.3	186.2	1081.0	658.4	401.9
100°	115.1	211.3	1248.1	1113.0	721.9
102.5°	145.5	238.1	1227.6	1646.6	1252.0
105°	192.2	277.4	1120.8	2140.7	2027.0
107.5°	242.7	322.9	1019.3	2183.4	2303.8
110°	279.4	352.5	971.1	2130.2	2347.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	309.7	382.0	940.6	2034.3	2314.6
115°	355.3	424.1	912.9	1881.5	2213.6
117.5°	402.3	464.3	902.2	1741.5	2072.2
120°	429.1	490.2	899.6	1655.5	1975.5
122.5°	455.0	515.4	900.5	1580.8	1879.0
125°	493.9	550.7	900.7	1485.5	1751.0
127.5°	527.2	585.3	900.5	1414.1	1635.5
130°	548.6	607.7	899.6	1373.3	1571.1
132.5°	567.4	629.1	898.7	1335.5	1521.1
135°	596.7	659.0	896.2	1282.1	1445.9
137.5°	625.4	688.1	893.7	1227.7	1373.3
140°	645.8	705.9	892.8	1191.0	1328.6
142.5°	665.5	723.0	892.8	1155.8	1278.6
145°	697.2	748.6	893.9	1104.2	1209.1
147.5°	728.1	772.7	895.5	1060.3	1141.3
150°	748.7	788.0	897.3	1034.0	1102.9
152.5°	769.2	801.6	898.2	1014.1	1069.0
155°	795.6	821.8	899.6	988.6	1025.7
157.5°	820.7	839.5	900.9	969.8	995.9
160°	835.8	851.1	901.7	958.1	978.9
162.5°	849.2	861.1	901.7	948.1	963.6
165°	868.2	875.9	901.7	935.5	946.4
167.5°	881.7	886.4	901.9	926.0	931.7
170°	890.6	892.8	902.8	919.7	921.9
172.5°	896.8	898.2	904.7	916.1	915.6
175°	905.1	905.1	905.1	911.8	909.6
177.5°	908.5	907.6	906.7	911.1	907.6
180°	908.5	908.5	908.5	908.5	908.5



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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	20.94	21.83	21.88	22.77	24.00	19.62	20.50	20.55	21.45	22.67
	3H	22.97	23.76	23.91	24.72	25.97	20.65	21.44	21.60	22.40	23.65
	4H	23.70	24.45	24.66	25.41	26.67	20.87	21.61	21.83	22.58	23.84
	6H	24.19	24.88	25.16	25.84	27.12	21.01	21.70	21.98	22.67	23.94
	8H	24.31	24.97	25.29	25.95	27.22	21.05	21.70	22.02	22.68	23.95
	12H	24.36	24.98	25.34	25.96	27.25	21.05	21.67	22.03	22.65	23.94
4H	2H	21.32	22.07	22.29	23.03	24.29	20.26	21.01	21.22	21.97	23.23
	3H	23.43	24.05	24.40	25.04	26.32	21.44	22.06	22.42	23.06	24.33
	4H	24.25	24.81	25.23	25.80	27.10	21.72	22.29	22.70	23.27	24.57
	6H	24.83	25.32	25.83	26.33	27.62	21.93	22.42	22.92	23.42	24.72
	8H	25.00	25.46	26.00	26.46	27.77	21.99	22.44	22.98	23.44	24.75
	12H	25.07	25.48	26.09	26.50	27.82	21.99	22.41	23.01	23.42	24.74
8H	4H	24.27	24.72	25.26	25.72	27.03	21.94	22.39	22.93	23.39	24.70
	6H	24.92	25.29	25.94	26.34	27.65	22.21	22.59	23.23	23.63	24.94
	8H	25.14	25.47	26.17	26.51	27.83	22.31	22.64	23.34	23.67	25.00
	12H	25.26	25.55	26.29	26.57	27.95	22.36	22.65	23.39	23.67	25.05
12H	4H	24.22	24.63	25.23	25.65	26.96	21.94	22.35	22.95	23.36	24.68
	6H	24.89	25.22	25.92	26.25	27.58	22.24	22.57	23.27	23.60	24.93
	8H	25.13	25.42	26.16	26.44	27.81	22.36	22.65	23.39	23.67	25.04