

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: P854948

Luminaire Tested: SQ2-PH1-100U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854948
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-830-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

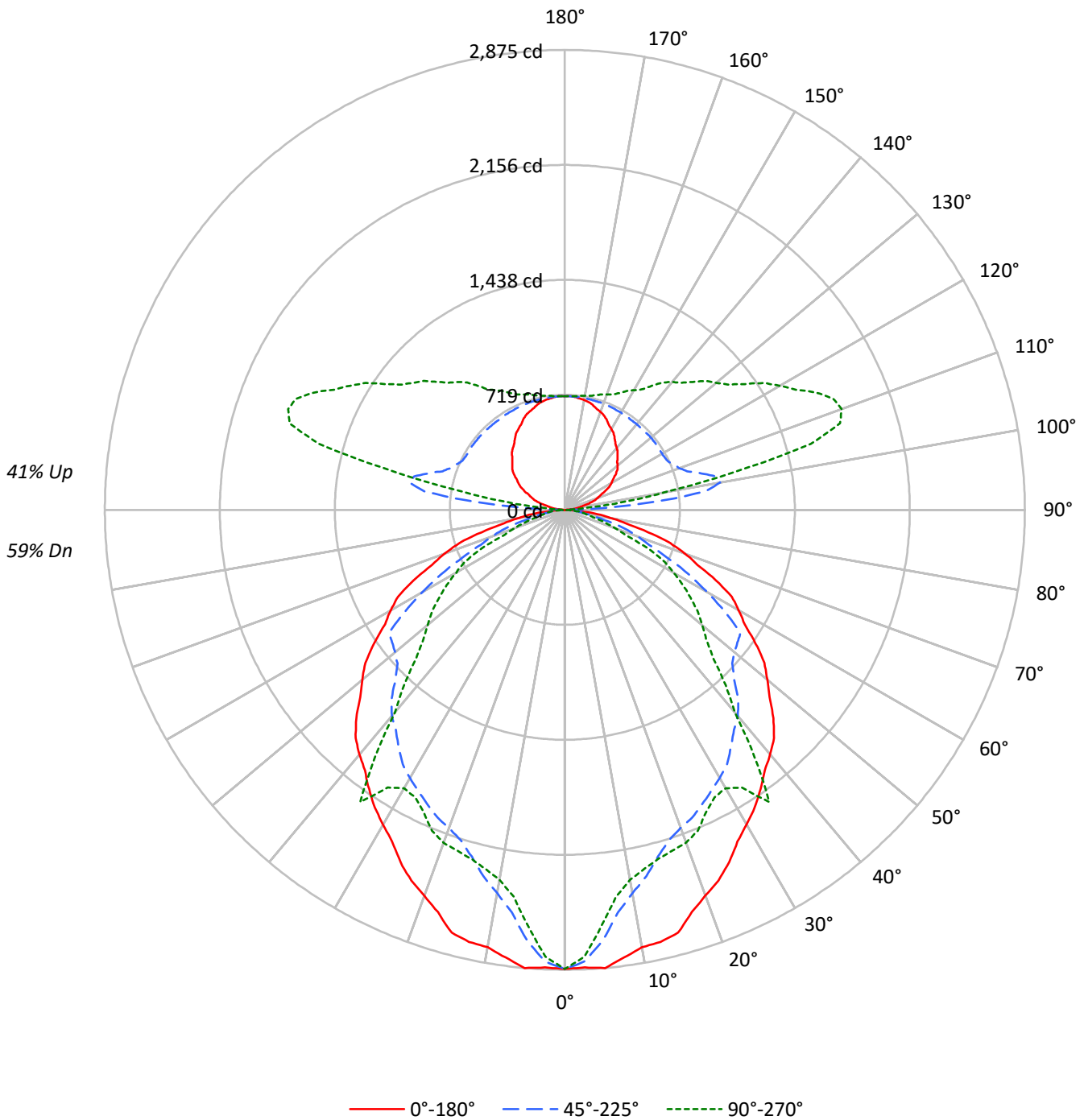
Lumens per Lamp: N/A
Luminaire Lumens: 10774.3 lumens
Efficiency: N/A
Efficacy: 131.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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				
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	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°	46335	46335	46335
5°	46601	43814	42352
10°	45529	39887	38499
15°	45733	37519	37747
20°	44103	36361	38050
25°	43294	36191	37164
30°	42355	36094	37468
35°	42034	35684	43919
40°	42069	35453	34819
45°	42087	34104	29990
50°	41496	34774	28123
55°	40969	37740	26978
60°	40558	33063	25304
65°	39851	26812	22013
70°	37638	22815	15725
75°	33562	17205	11928
80°	27420	11176	11176
85°	17191	10115	7577

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 42087 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.5	2.3
10°-20°	664.2	6.2
20°-30°	973.9	9.0
30°-40°	1179.5	10.9
40°-50°	1159.9	10.8
50°-60°	1009.7	9.4
60°-70°	701.9	6.5
70°-80°	332.8	3.1
80°-90°	74.6	0.7
90°-100°	296.9	2.8
100°-110°	898.1	8.3
110°-120°	876.8	8.1
120°-130°	716.4	6.6
130°-140°	584.8	5.4
140°-150°	455.2	4.2
150°-160°	328.2	3.0
160°-170°	200.9	1.9
170°-180°	67.8	0.6
0°-30°	1890.7	17.5
0°-40°	3070.1	28.5
0°-60°	5239.7	48.6
0°-90°	6349.0	58.9
90°-120°	2071.8	19.2
90°-150°	3828.3	35.5
90°-180°	4425.0	41.1
0°-180°	10774.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2870	2870	2870	2870	2870	
5°	2875	2873	2703	2618	2613	270
15°	2736	2437	2245	2229	2258	763
25°	2430	2067	2032	2094	2086	1118
35°	2133	1724	1810	1966	2228	1336
45°	1843	1365	1494	1546	1313	1417
55°	1455	1063	1341	966	958	1300
65°	1043	731	702	576	576	1025
75°	538	372	276	196	191	570
85°	93	61	55	44	41	124
90°	0	2	13	8	7	4
95°	37	116	560	207	131	44
105°	156	220	882	1675	1592	164
115°	278	331	713	1476	1734	275
125°	388	431	703	1166	1372	345
135°	466	515	699	1005	1131	360
145°	544	584	699	865	945	340
155°	620	640	703	775	805	285
165°	678	685	706	734	742	191
175°	709	709	710	716	713	67
180°	711	711	711	711	711	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2869.8	2869.8	2869.8	2869.8	2869.8
2.5°	2863.2	2893.2	2826.2	2799.8	2795.5
5°	2875.3	2872.6	2703.3	2618.5	2613.1
7.5°	2822.9	2740.1	2537.8	2444.3	2440.0
10°	2777.0	2651.5	2432.9	2348.2	2348.2
12.5°	2766.1	2567.9	2347.8	2285.3	2298.0
15°	2736.0	2437.0	2244.6	2228.8	2258.2
17.5°	2636.7	2314.7	2164.3	2200.0	2234.2
20°	2566.8	2249.0	2116.2	2182.5	2214.5
22.5°	2507.8	2185.8	2081.3	2153.8	2170.8
25°	2430.2	2067.2	2031.5	2094.2	2086.1
27.5°	2337.4	1958.3	1981.8	2020.2	2025.0
30°	2271.8	1892.7	1936.0	1975.0	2009.7
32.5°	2208.5	1816.5	1885.7	1978.2	2057.8
35°	2132.6	1724.1	1810.4	1966.5	2228.2
37.5°	2052.8	1615.0	1734.4	1865.8	1949.1
40°	1996.0	1536.8	1682.1	1844.2	1652.0
42.5°	1934.9	1475.6	1603.4	1812.8	1488.2
45°	1843.2	1365.3	1493.6	1545.7	1313.4
47.5°	1735.0	1279.5	1419.3	1288.9	1198.1
50°	1652.0	1222.1	1384.4	1178.2	1119.6
52.5°	1571.1	1162.6	1360.4	1087.0	1047.4
55°	1455.4	1062.9	1340.7	966.5	958.4
57.5°	1332.5	961.4	1185.6	861.5	875.5
60°	1256.0	895.6	1023.9	799.7	783.6
62.5°	1175.2	831.9	873.2	721.0	705.1
65°	1043.1	730.7	701.8	576.2	576.2
67.5°	897.8	625.5	568.5	471.5	407.4
70°	797.3	557.1	483.3	375.8	333.1
72.5°	690.3	484.1	396.0	308.0	258.8
75°	538.0	372.4	275.8	196.5	191.2
77.5°	388.8	268.2	185.7	145.9	146.3
80°	294.9	204.1	120.2	117.5	120.2
82.5°	207.5	140.2	89.5	93.4	94.0
85°	92.8	60.8	54.6	43.6	40.9
87.5°	19.7	18.0	13.6	12.4	12.2
90°	0.0	2.1	13.3	7.8	6.7
92.5°	12.6	50.5	181.2	60.2	43.3
95°	36.9	116.5	560.3	207.0	130.6
97.5°	71.2	148.2	883.1	584.4	355.8
100°	92.6	167.9	986.7	953.9	640.7
102.5°	116.8	189.5	965.3	1338.0	1066.6
105°	156.3	219.6	881.8	1674.7	1591.7
107.5°	193.8	254.3	801.5	1708.1	1804.1
110°	218.8	276.7	761.3	1666.0	1840.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	242.9	298.9	737.2	1595.7	1816.6
115°	277.9	331.4	713.3	1475.9	1733.5
117.5°	312.7	363.4	704.8	1363.8	1627.4
120°	336.0	384.0	702.1	1298.3	1551.6
122.5°	357.4	402.8	702.1	1240.8	1474.8
125°	388.5	431.0	703.3	1165.6	1371.8
127.5°	413.7	457.8	702.1	1108.8	1284.7
130°	429.8	475.5	702.1	1076.4	1235.7
132.5°	444.0	490.7	701.2	1046.6	1193.7
135°	465.5	514.6	698.7	1005.3	1130.8
137.5°	489.3	536.0	698.7	961.0	1077.4
140°	504.5	550.4	698.7	932.3	1042.6
142.5°	519.8	563.9	697.8	906.1	1002.4
145°	543.6	584.0	698.7	864.7	945.4
147.5°	567.5	601.7	700.1	830.6	892.5
150°	582.7	614.3	701.0	811.6	863.9
152.5°	597.0	625.1	701.9	795.3	838.0
155°	619.5	640.3	703.3	775.4	804.8
157.5°	639.2	656.0	704.6	760.6	781.2
160°	650.8	664.9	705.4	751.5	766.8
162.5°	662.3	673.1	706.3	743.5	756.2
165°	677.6	685.2	706.5	733.6	742.3
167.5°	690.5	694.4	707.9	725.9	729.6
170°	697.6	699.9	708.8	722.3	723.3
172.5°	702.1	703.4	708.8	718.6	718.9
175°	708.8	708.8	709.9	715.5	713.3
177.5°	712.0	711.1	710.2	712.8	711.1
180°	711.1	711.1	711.1	711.1	711.1



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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	21.44	22.38	22.32	23.28	24.42	20.12	21.05	20.99	21.95	23.09
	3H	23.47	24.31	24.36	25.22	26.39	21.16	22.00	22.05	22.90	24.07
	4H	24.21	25.00	25.12	25.92	27.09	21.37	22.17	22.28	23.08	24.25
	6H	24.70	25.43	25.62	26.35	27.54	21.52	22.25	22.44	23.17	24.36
	8H	24.82	25.52	25.75	26.46	27.64	21.56	22.25	22.48	23.19	24.37
	12H	24.87	25.53	25.80	26.47	27.68	21.56	22.22	22.49	23.15	24.36
4H	2H	21.83	22.62	22.74	23.53	24.71	20.77	21.56	21.68	22.47	23.65
	3H	23.94	24.60	24.86	25.55	26.73	21.95	22.61	22.88	23.56	24.75
	4H	24.76	25.36	25.69	26.30	27.51	22.23	22.83	23.17	23.77	24.99
	6H	25.35	25.87	26.30	26.83	28.04	22.44	22.96	23.39	23.93	25.14
	8H	25.52	26.00	26.47	26.96	28.19	22.50	22.99	23.45	23.94	25.17
	12H	25.59	26.03	26.56	27.00	28.24	22.51	22.95	23.48	23.92	25.16
8H	4H	24.78	25.27	25.73	26.22	27.45	22.45	22.94	23.40	23.90	25.12
	6H	25.44	25.84	26.41	26.84	28.06	22.73	23.13	23.71	24.13	25.36
	8H	25.66	26.02	26.65	27.00	28.25	22.83	23.19	23.82	24.17	25.42
	12H	25.78	26.09	26.77	27.07	28.37	22.88	23.19	23.87	24.17	25.47
12H	4H	24.74	25.17	25.71	26.15	27.38	22.46	22.89	23.42	23.87	25.10
	6H	25.41	25.77	26.40	26.75	28.00	22.76	23.11	23.74	24.10	25.35
	8H	25.65	25.96	26.64	26.94	28.23	22.88	23.19	23.87	24.17	25.46