

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: P854920

Luminaire Tested: SQ2-PP3-100U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854920
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-100U-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

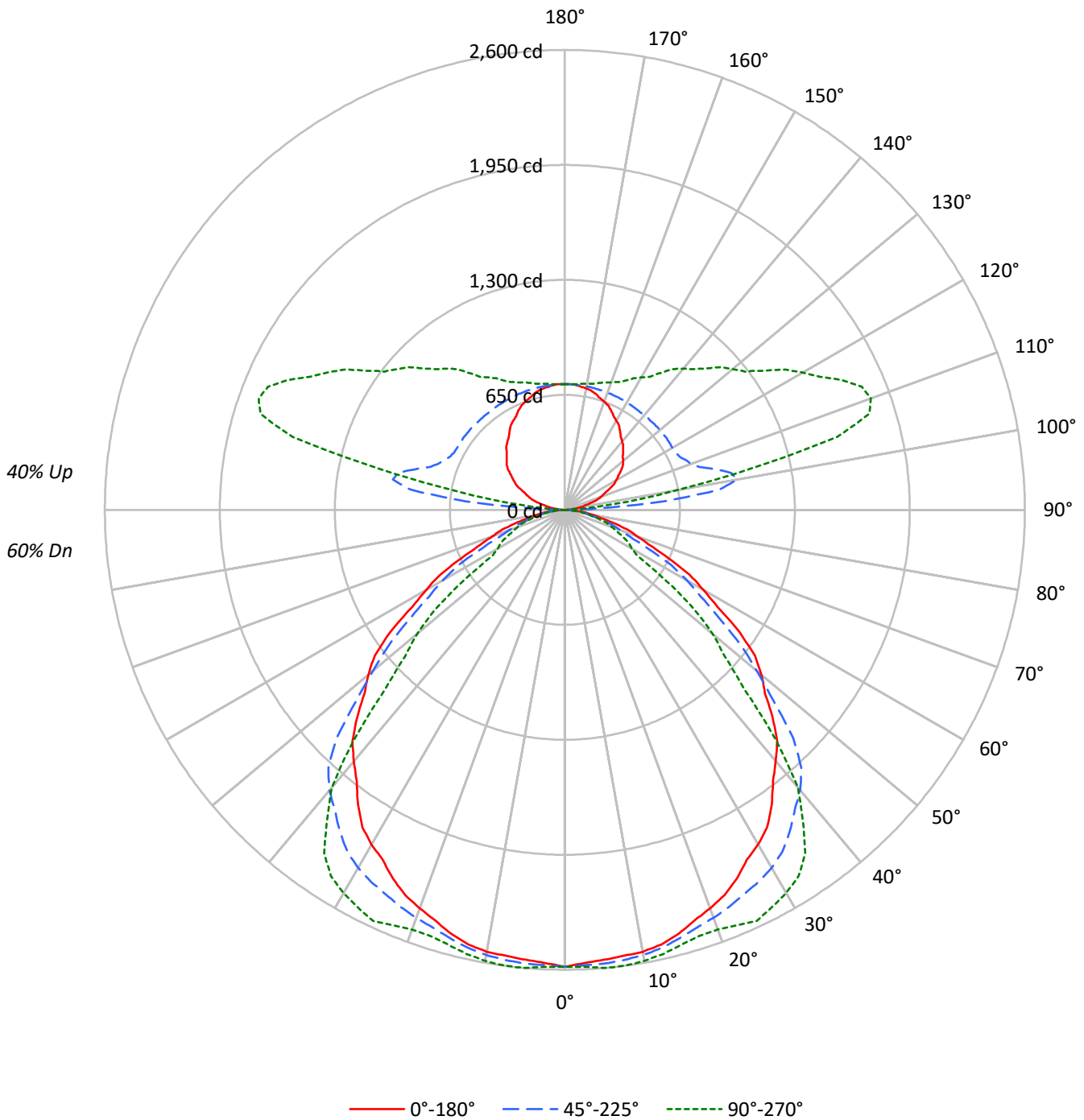
Lumens per Lamp: N/A
Luminaire Lumens: 10931.8 lumens
Efficiency: N/A
Efficacy: 133.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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

TEST NUMBER: P854920

CATALOG NUMBER: SQ2-PP3-100U-125D-830-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854920

CATALOG NUMBER: SQ2-PP3-100U-125D-830-UNV-STD-W-4

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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60				
1	101	96	93	89	94	90	87	84	79	76	74	68	66	65	58	57	56	51				
2	92	85	79	74	86	80	74	70	70	66	62	61	58	55	52	50	48	44				
3	84	75	68	62	79	71	64	59	62	57	53	54	50	47	47	44	42	38				
4	77	67	59	53	72	63	56	51	55	50	46	48	44	41	42	39	36	33				
5	71	60	52	46	66	56	49	44	50	44	40	44	39	36	38	35	32	29				
6	66	54	46	40	61	51	44	38	45	39	35	40	35	31	35	31	28	25				
7	61	49	41	35	57	46	39	34	41	35	31	36	31	28	32	28	25	23				
8	57	44	37	31	53	42	35	30	37	32	27	33	28	25	29	25	23	20				
9	53	41	33	28	49	38	32	27	34	29	25	30	26	23	27	23	20	18				
10	49	37	30	25	46	35	29	24	32	26	22	28	24	20	25	21	19	17				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	41706	41706	41706
5°	41379	41733	42131
10°	41589	41902	42440
15°	41489	41899	42539
20°	41192	42177	43397
25°	40960	42710	45678
30°	40725	43578	46631
35°	40150	43702	46718
40°	39077	43625	43163
45°	37908	41651	32858
50°	36419	35528	27367
55°	33895	29900	19679
60°	29185	25659	14108
65°	24623	19824	13876
70°	20497	15597	13279
75°	17374	13456	12433
80°	14728	11678	11176
85°	11634	9615	6076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 41651 cd/sqm



TEST NUMBER: P854920

CATALOG NUMBER: SQ2-PP3-100U-125D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.0	2.2
10°-20°	711.8	6.5
20°-30°	1115.2	10.2
30°-40°	1375.7	12.6
40°-50°	1295.3	11.8
50°-60°	917.1	8.4
60°-70°	522.6	4.8
70°-80°	258.5	2.4
80°-90°	64.5	0.6
90°-100°	296.9	2.7
100°-110°	898.1	8.2
110°-120°	876.8	8.0
120°-130°	716.4	6.6
130°-140°	584.8	5.3
140°-150°	455.2	4.2
150°-160°	328.2	3.0
160°-170°	200.9	1.8
170°-180°	67.8	0.6
0°-30°	2073.0	19.0
0°-40°	3448.7	31.5
0°-60°	5661.0	51.8
0°-90°	6506.6	59.5
90°-120°	2071.8	19.0
90°-150°	3828.3	35.0
90°-180°	4425.0	40.5
0°-180°	10931.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2583	2583	2583	2583	2583	
5°	2553	2598	2575	2581	2600	243
15°	2482	2517	2507	2532	2545	699
25°	2299	2358	2397	2494	2564	1059
35°	2037	2093	2217	2344	2370	1270
45°	1660	1786	1824	1546	1439	1278
55°	1204	1276	1062	800	699	1062
65°	644	679	519	366	363	647
75°	278	308	216	202	199	302
85°	63	57	52	41	33	74
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	



TEST NUMBER: P854920

CATALOG NUMBER: SQ2-PP3-100U-125D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2583.1	2583.1	2583.1	2583.1	2583.1
2.5°	2563.5	2599.8	2576.5	2581.0	2585.3
5°	2553.1	2598.4	2574.9	2580.8	2599.5
7.5°	2543.3	2589.7	2566.8	2576.5	2599.5
10°	2536.7	2576.7	2555.8	2569.8	2588.6
12.5°	2517.0	2554.9	2536.1	2554.6	2571.1
15°	2482.1	2516.8	2506.6	2531.5	2544.9
17.5°	2434.6	2476.8	2476.7	2511.8	2525.7
20°	2397.4	2448.2	2454.7	2499.1	2525.7
22.5°	2358.1	2417.4	2428.5	2495.1	2541.1
25°	2299.2	2357.8	2397.4	2494.5	2564.0
27.5°	2230.3	2288.5	2370.2	2478.9	2534.0
30°	2184.4	2240.5	2337.4	2450.4	2501.2
32.5°	2127.6	2185.9	2289.3	2411.1	2457.5
35°	2037.0	2093.0	2217.2	2343.5	2370.2
37.5°	1932.7	1996.3	2135.3	2205.8	2207.4
40°	1854.0	1936.8	2069.8	2082.6	2047.9
42.5°	1777.6	1883.9	1978.1	1920.4	1766.2
45°	1660.2	1785.6	1824.1	1545.8	1439.0
47.5°	1535.1	1659.0	1597.9	1296.4	1222.8
50°	1449.9	1567.4	1414.4	1158.9	1089.5
52.5°	1353.8	1458.5	1250.6	1027.1	921.2
55°	1204.1	1276.3	1062.2	800.5	699.1
57.5°	1023.9	1074.7	908.1	600.8	487.1
60°	903.8	943.9	794.6	493.0	436.9
62.5°	794.6	830.3	676.7	428.3	408.5
65°	644.5	679.2	518.9	365.9	363.2
67.5°	512.7	550.7	398.1	319.4	316.2
70°	434.2	474.2	330.4	286.6	281.3
72.5°	368.6	406.6	280.2	251.7	248.5
75°	278.5	307.9	215.7	202.0	199.3
77.5°	202.0	220.7	160.6	153.4	150.7
80°	158.4	166.4	125.6	122.8	120.2
82.5°	119.1	116.3	95.0	92.1	87.4
85°	62.8	57.4	51.9	40.8	32.8
87.5°	19.7	20.1	11.4	8.1	7.9
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



TEST NUMBER: P854920

CATALOG NUMBER: SQ2-PP3-100U-125D-830-UNV-STD-W-4

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



TEST NUMBER: P854920

CATALOG NUMBER: SQ2-PP3-100U-125D-830-UNV-STD-W-4

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	21.35	22.26	22.23	23.16	24.29	17.74	18.66	18.62	19.55	20.68
	3H	22.45	23.26	23.34	24.17	25.33	18.85	19.67	19.74	20.57	21.73
	4H	22.79	23.56	23.70	24.47	25.64	19.32	20.09	20.23	21.00	22.17
	6H	23.01	23.72	23.93	24.64	25.82	19.67	20.38	20.59	21.29	22.47
	8H	23.06	23.74	23.99	24.67	25.85	19.76	20.43	20.68	21.36	22.54
	12H	23.08	23.72	24.01	24.64	25.85	19.77	20.41	20.70	21.34	22.54
4H	2H	21.46	22.23	22.38	23.14	24.31	18.47	19.24	19.38	20.14	21.31
	3H	22.78	23.42	23.70	24.36	25.54	19.72	20.36	20.64	21.30	22.48
	4H	23.25	23.83	24.19	24.77	25.98	20.28	20.86	21.21	21.79	23.00
	6H	23.59	24.09	24.54	25.05	26.26	20.72	21.22	21.67	22.18	23.39
	8H	23.69	24.15	24.64	25.11	26.33	20.84	21.31	21.79	22.26	23.48
	12H	23.73	24.15	24.69	25.12	26.34	20.87	21.29	21.84	22.26	23.49
8H	4H	23.28	23.74	24.22	24.69	25.92	20.56	21.02	21.50	21.97	23.20
	6H	23.71	24.09	24.68	25.09	26.31	21.10	21.49	22.08	22.48	23.70
	8H	23.87	24.21	24.85	25.19	26.43	21.29	21.63	22.27	22.61	23.85
	12H	23.95	24.26	24.94	25.23	26.52	21.36	21.67	22.35	22.64	23.93
12H	4H	23.24	23.66	24.20	24.63	25.85	20.57	20.98	21.53	21.96	23.18
	6H	23.70	24.04	24.68	25.02	26.26	21.16	21.50	22.14	22.48	23.72
	8H	23.87	24.17	24.86	25.15	26.44	21.37	21.67	22.35	22.64	23.93