

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: P854912

Luminaire Tested: SQ2-PP3-150U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854912
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-150U-125D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

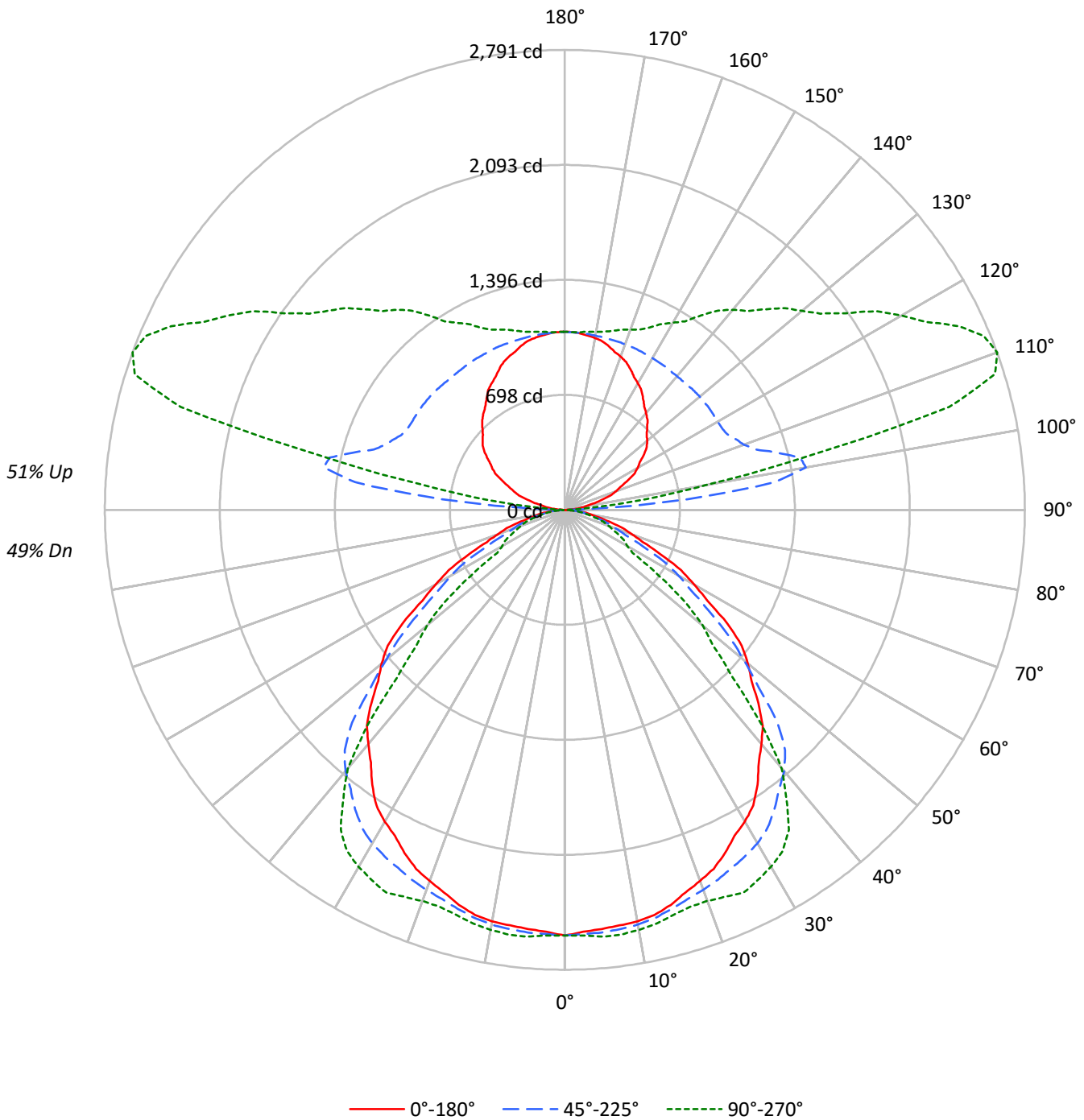
Lumens per Lamp: N/A
Luminaire Lumens: 13171.3 lumens
Efficiency: N/A
Efficacy: 124.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 105.8
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	50	30	10
RCR																				
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	49		
1	98	94	90	87	90	87	84	81	74	71	69	61	60	58	50	49	48	43		
2	90	83	77	72	83	77	72	67	65	61	58	54	52	49	45	43	41	37		
3	82	73	66	60	76	68	62	57	58	53	49	48	45	42	40	38	36	31		
4	75	65	57	51	69	60	54	48	52	46	42	43	40	37	36	33	31	27		
5	69	58	50	44	64	54	47	42	46	41	37	39	35	32	32	30	27	24		
6	64	52	44	39	59	49	41	36	42	36	32	35	31	28	30	26	24	21		
7	59	47	39	34	54	44	37	32	38	32	28	32	28	25	27	24	21	19		
8	55	43	35	30	51	40	33	28	35	29	25	30	25	22	25	22	19	17		
9	51	39	32	27	47	37	30	25	32	26	23	27	23	20	23	20	17	15		
10	48	36	29	24	44	34	27	23	29	24	20	25	21	18	21	18	16	14		

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.0	1.9
10°-20°	711.8	5.4
20°-30°	1115.2	8.5
30°-40°	1375.7	10.4
40°-50°	1295.3	9.8
50°-60°	917.1	7.0
60°-70°	522.6	4.0
70°-80°	258.5	2.0
80°-90°	64.4	0.5
90°-100°	411.4	3.1
100°-110°	1347.2	10.2
110°-120°	1332.0	10.1
120°-130°	1088.8	8.3
130°-140°	888.5	6.7
140°-150°	691.5	5.2
150°-160°	497.9	3.8
160°-170°	304.6	2.3
170°-180°	102.9	0.8
0°-30°	2073.0	15.7
0°-40°	3448.7	26.2
0°-60°	5661.0	43.0
0°-90°	6506.5	49.4
90°-120°	3090.6	23.5
90°-150°	5759.4	43.7
90°-180°	6665.0	50.6
0°-180°	13171.3	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°	1	3	9	8	9	6
95°	58	167	748	266	173	65
105°	234	334	1337	2541	2414	247
115°	422	504	1086	2245	2636	417
125°	587	654	1071	1770	2080	522
135°	707	782	1062	1527	1721	547
145°	827	888	1060	1314	1439	518
155°	942	974	1066	1175	1221	434
165°	1029	1038	1071	1112	1124	290
175°	1075	1075	1076	1084	1082	102
180°	1080	1080	1080	1080	1080	



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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°	19.9	20.4	10.5	8.1	8.4
90°	1.1	3.3	8.9	7.8	8.9
92.5°	18.9	68.7	211.3	68.7	55.1
95°	57.7	167.3	748.0	266.5	173.1
97.5°	104.8	220.7	1283.4	776.3	481.2
100°	137.6	248.3	1484.9	1326.0	879.0
102.5°	174.9	283.0	1462.7	1953.9	1514.6
105°	234.2	334.0	1337.3	2540.8	2413.8
107.5°	292.5	384.1	1215.0	2595.6	2735.1
110°	330.7	419.7	1156.4	2531.7	2791.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	367.1	453.5	1120.9	2420.7	2752.9
115°	421.7	504.2	1086.4	2245.1	2635.8
117.5°	474.8	551.8	1073.4	2072.6	2469.2
120°	509.4	582.1	1069.8	1972.0	2358.3
122.5°	540.4	611.5	1069.8	1885.2	2243.8
125°	587.0	654.3	1070.9	1770.5	2079.7
127.5°	626.6	695.1	1069.6	1685.9	1955.0
130°	651.5	720.9	1068.7	1634.7	1877.8
132.5°	673.6	744.9	1066.1	1590.7	1811.2
135°	706.9	781.8	1062.0	1527.0	1721.3
137.5°	742.0	816.2	1059.6	1460.7	1636.3
140°	766.9	838.5	1058.7	1418.7	1584.8
142.5°	791.7	858.9	1058.7	1374.0	1524.4
145°	826.8	887.6	1059.9	1313.5	1439.4
147.5°	863.6	914.2	1061.4	1260.9	1356.0
150°	886.8	931.2	1063.1	1230.4	1310.6
152.5°	909.8	949.1	1064.0	1205.2	1271.6
155°	942.2	973.7	1066.5	1175.2	1220.8
157.5°	971.3	994.1	1068.9	1151.6	1184.6
160°	989.9	1008.4	1069.8	1138.1	1164.1
162.5°	1005.9	1020.9	1069.8	1127.3	1146.4
165°	1028.8	1038.5	1070.9	1112.3	1124.2
167.5°	1048.1	1052.9	1072.3	1100.6	1107.1
170°	1058.7	1060.9	1073.2	1094.3	1096.5
172.5°	1066.8	1068.0	1075.8	1089.8	1090.3
175°	1075.4	1075.4	1076.5	1084.2	1082.0
177.5°	1079.8	1079.0	1078.1	1083.3	1079.8
180°	1079.8	1079.8	1079.8	1079.8	1079.8



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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	20.45	21.27	21.42	22.25	23.53	16.84	17.67	17.81	18.65	19.93
	3H	21.54	22.28	22.52	23.26	24.57	17.95	18.68	18.93	19.67	20.97
	4H	21.88	22.58	22.87	23.57	24.88	18.41	19.10	19.40	20.09	21.41
	6H	22.09	22.73	23.10	23.73	25.06	18.75	19.39	19.76	20.39	21.71
	8H	22.14	22.75	23.15	23.76	25.09	18.84	19.44	19.85	20.46	21.78
	12H	22.16	22.73	23.17	23.74	25.09	18.85	19.43	19.86	20.43	21.78
4H	2H	20.55	21.25	21.55	22.24	23.55	17.55	18.25	18.55	19.24	20.55
	3H	21.86	22.43	22.87	23.45	24.78	18.80	19.38	19.81	20.40	21.73
	4H	22.33	22.86	23.35	23.87	25.22	19.35	19.88	20.37	20.89	22.24
	6H	22.67	23.12	23.69	24.15	25.50	19.79	20.24	20.82	21.28	22.63
	8H	22.76	23.18	23.79	24.21	25.57	19.91	20.33	20.94	21.36	22.73
	12H	22.79	23.17	23.84	24.22	25.58	19.94	20.32	20.99	21.37	22.73
8H	4H	22.35	22.77	23.37	23.80	25.16	19.62	20.05	20.65	21.08	22.44
	6H	22.78	23.12	23.83	24.20	25.55	20.17	20.52	21.22	21.59	22.95
	8H	22.93	23.24	23.99	24.30	25.67	20.35	20.66	21.41	21.72	23.10
	12H	23.02	23.29	24.08	24.34	25.76	20.43	20.70	21.49	21.75	23.17
12H	4H	22.30	22.68	23.35	23.73	25.09	19.63	20.01	20.68	21.06	22.42
	6H	22.76	23.07	23.82	24.13	25.51	20.22	20.53	21.28	21.59	22.96
	8H	22.93	23.20	24.00	24.25	25.68	20.43	20.70	21.49	21.75	23.17