

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: P854243

Luminaire Tested: SQ2-PR1-150U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854243
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-150U-125D-940-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

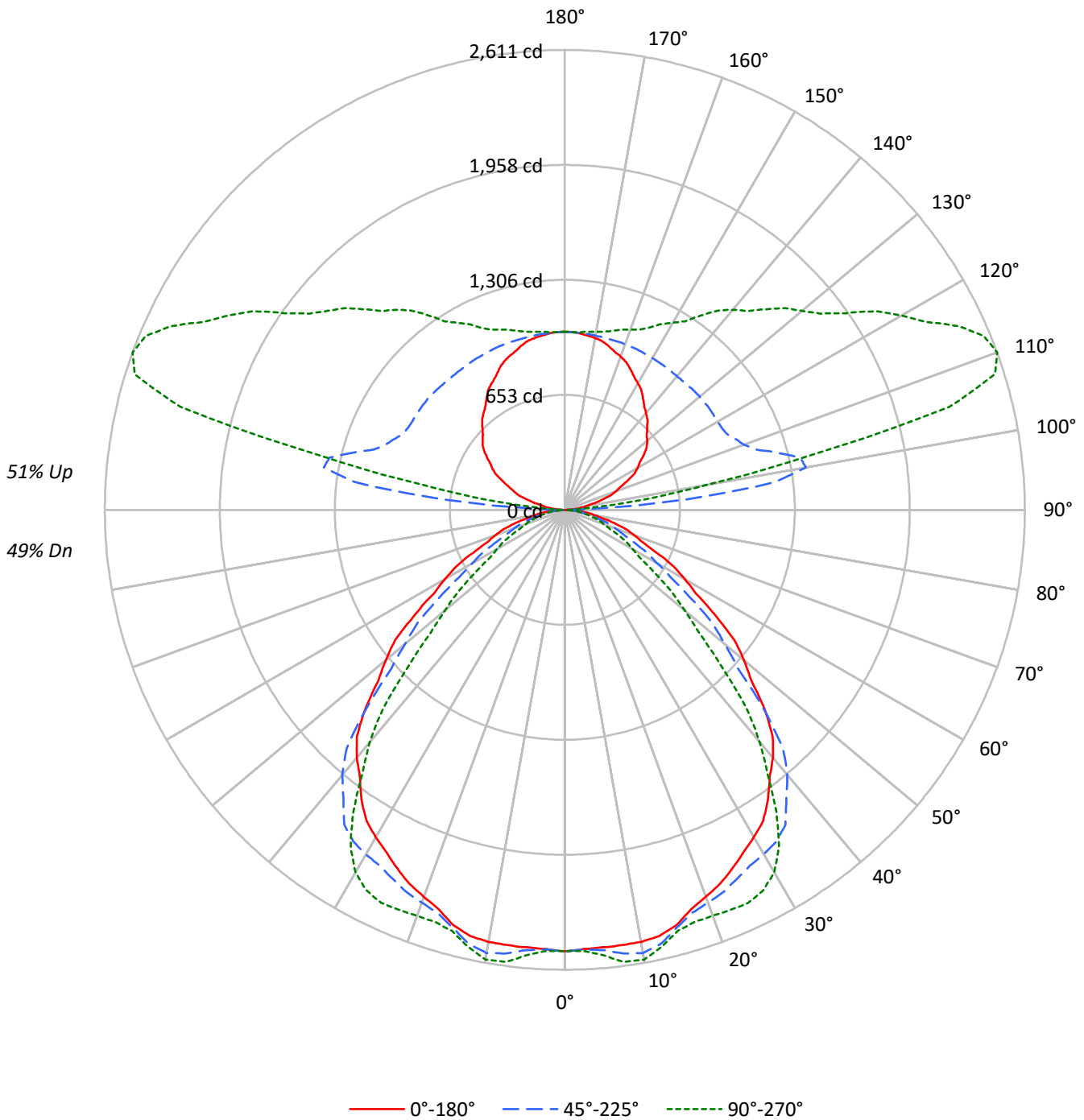
Lumens per Lamp: N/A
Luminaire Lumens: 12264.9 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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

TEST NUMBER: P854243

CATALOG NUMBER: SQ2-PR1-150U-125D-940-UNV-STD-W-4

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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	55	55	55	49
1	98	94	91	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	62	58	55	52	50	45	43	41	37
3	82	73	66	61	76	68	62	57	58	53	50	49	45	43	40	38	36	32
4	76	65	58	52	70	61	54	49	52	47	43	44	40	37	36	33	31	28
5	70	58	51	45	64	54	47	42	47	41	37	39	35	32	33	30	28	24
6	64	53	45	39	59	49	42	37	42	37	33	36	32	29	30	27	24	22
7	59	47	40	34	55	44	37	33	38	33	29	33	28	25	27	24	22	19
8	55	43	36	30	51	40	34	29	35	30	26	30	26	23	25	22	20	17
9	51	39	32	27	47	37	30	26	32	27	23	28	23	20	23	20	18	16
10	48	36	29	24	44	34	28	23	30	24	21	25	21	19	22	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	40461	40461	40461
5°	40410	40658	41154
10°	40835	41882	42510
15°	40822	41035	41377
20°	40161	40776	42137
25°	40048	41186	43871
30°	40005	42101	44292
35°	39626	43000	41238
40°	38712	41406	36290
45°	36632	36340	28697
50°	33302	29710	22265
55°	29267	24451	17332
60°	25326	19549	14270
65°	21861	16202	12493
70°	19657	14351	11094
75°	18010	12433	10200
80°	15676	9977	9977
85°	11356	8985	4724

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 39598 cd/sqm



TEST NUMBER: P854243

CATALOG NUMBER: SQ2-PR1-150U-125D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.0	2.0
10°-20°	700.5	5.7
20°-30°	1082.9	8.8
30°-40°	1302.5	10.6
40°-50°	1169.5	9.5
50°-60°	783.5	6.4
60°-70°	455.7	3.7
70°-80°	234.1	1.9
80°-90°	58.9	0.5
90°-100°	384.9	3.1
100°-110°	1260.4	10.3
110°-120°	1246.1	10.2
120°-130°	1018.6	8.3
130°-140°	831.2	6.8
140°-150°	646.9	5.3
150°-160°	465.8	3.8
160°-170°	285.0	2.3
170°-180°	96.3	0.8
0°-30°	2025.5	16.5
0°-40°	3328.0	27.1
0°-60°	5281.0	43.1
0°-90°	6029.7	49.2
90°-120°	2891.4	23.6
90°-150°	5388.2	43.9
90°-180°	6235.0	50.8
0°-180°	12264.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2506	2506	2506	2506	2506	
5°	2493	2536	2509	2514	2539	238
15°	2442	2542	2455	2463	2475	686
25°	2248	2338	2312	2398	2463	1037
35°	2010	2028	2182	2140	2092	1253
45°	1604	1734	1592	1342	1257	1227
55°	1040	1080	869	671	616	934
65°	572	585	424	344	327	579
75°	289	281	199	168	164	306
85°	61	49	48	33	26	76
90°	1	3	8	7	8	5
95°	54	156	700	249	162	61
105°	219	312	1251	2377	2258	231
115°	394	472	1016	2100	2466	390
125°	549	612	1002	1656	1946	489
135°	661	731	994	1429	1610	512
145°	774	830	992	1229	1347	485
155°	882	911	998	1099	1142	406
165°	962	972	1002	1041	1052	271
175°	1006	1006	1007	1014	1012	95
180°	1010	1010	1010	1010	1010	



TEST NUMBER: P854243

CATALOG NUMBER: SQ2-PR1-150U-125D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2506.0	2506.0	2506.0	2506.0	2506.0
2.5°	2495.8	2525.8	2497.9	2500.0	2506.0
5°	2493.3	2535.7	2508.6	2514.3	2539.2
7.5°	2492.7	2553.2	2540.3	2555.8	2588.8
10°	2490.7	2563.1	2554.6	2557.9	2592.9
12.5°	2478.4	2562.9	2523.9	2520.8	2539.8
15°	2442.2	2542.1	2454.9	2462.9	2475.4
17.5°	2378.3	2482.7	2399.8	2427.9	2452.4
20°	2337.4	2439.8	2373.2	2409.9	2452.4
22.5°	2300.6	2403.1	2348.7	2400.1	2458.5
25°	2248.0	2337.9	2311.9	2397.7	2462.6
27.5°	2192.8	2245.8	2276.6	2391.6	2437.1
30°	2145.8	2180.8	2258.2	2358.3	2375.7
32.5°	2094.7	2115.7	2233.7	2285.8	2263.3
35°	2010.4	2027.9	2181.6	2139.6	2092.2
37.5°	1910.3	1946.3	2064.6	1943.8	1889.4
40°	1836.7	1896.7	1964.5	1784.2	1721.8
42.5°	1746.8	1842.7	1831.6	1602.0	1525.6
45°	1604.3	1734.2	1591.5	1341.8	1256.8
47.5°	1436.2	1569.6	1336.0	1113.0	1033.6
50°	1325.8	1433.2	1182.8	973.9	886.4
52.5°	1213.4	1290.9	1052.0	843.2	763.8
55°	1039.7	1079.7	868.6	670.6	615.7
57.5°	880.3	905.8	709.7	541.7	501.2
60°	784.3	801.7	605.4	474.4	441.9
62.5°	696.4	709.9	521.6	417.4	392.9
65°	572.2	584.7	424.1	344.5	327.0
67.5°	473.6	480.1	349.0	286.2	269.8
70°	416.4	418.9	304.0	247.5	235.0
72.5°	365.3	361.8	261.1	214.9	206.4
75°	288.7	281.2	199.3	168.5	163.5
77.5°	215.6	207.6	140.0	129.8	129.8
80°	168.6	158.6	107.3	107.3	107.3
82.5°	125.7	111.7	82.8	82.7	80.7
85°	61.3	48.8	48.5	33.0	25.5
87.5°	16.6	17.0	7.8	7.6	7.8
90°	1.0	3.1	8.3	7.3	8.3
92.5°	17.7	64.3	197.7	64.3	51.5
95°	54.0	156.5	699.8	249.3	162.0
97.5°	98.0	206.4	1200.6	726.3	450.2
100°	128.7	232.3	1389.2	1240.5	822.3
102.5°	163.6	264.7	1368.4	1827.9	1417.0
105°	219.1	312.5	1251.1	2377.0	2258.2
107.5°	273.7	359.4	1136.7	2428.3	2558.9
110°	309.4	392.6	1081.9	2368.6	2611.2



TEST NUMBER: P854243

CATALOG NUMBER: SQ2-PR1-150U-125D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	343.5	424.3	1048.6	2264.6	2575.5
115°	394.5	471.7	1016.4	2100.4	2465.8
117.5°	444.2	516.2	1004.2	1939.0	2310.1
120°	476.6	544.6	1000.9	1844.9	2206.3
122.5°	505.6	572.0	1000.9	1763.7	2099.1
125°	549.2	612.2	1001.9	1656.4	1945.7
127.5°	586.2	650.4	1000.7	1577.2	1829.0
130°	609.5	674.4	999.8	1529.3	1756.7
132.5°	630.2	696.8	997.3	1488.1	1694.4
135°	661.4	731.4	993.6	1428.6	1610.3
137.5°	694.2	763.6	991.3	1366.5	1530.8
140°	717.4	784.4	990.5	1327.3	1482.6
142.5°	740.7	803.6	990.5	1285.4	1426.1
145°	773.5	830.3	991.5	1228.9	1346.6
147.5°	808.0	855.3	993.0	1179.6	1268.5
150°	829.6	871.2	994.6	1151.1	1226.2
152.5°	851.2	887.9	995.5	1127.5	1189.6
155°	881.5	910.9	997.8	1099.4	1142.1
157.5°	908.7	930.0	1000.0	1077.4	1108.2
160°	926.1	943.4	1000.9	1064.8	1089.1
162.5°	941.1	955.1	1000.9	1054.6	1072.5
165°	962.5	971.6	1001.9	1040.6	1051.7
167.5°	980.5	985.0	1003.2	1029.7	1035.8
170°	990.5	992.5	1004.0	1023.8	1025.8
172.5°	998.0	999.2	1006.5	1019.6	1020.0
175°	1006.1	1006.1	1007.1	1014.3	1012.3
177.5°	1010.2	1009.4	1008.6	1013.5	1010.2
180°	1010.2	1010.2	1010.2	1010.2	1010.2



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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	19.56	20.37	20.53	21.35	22.64	16.28	17.10	17.26	18.08	19.36
	3H	20.79	21.51	21.77	22.50	23.81	17.34	18.07	18.33	19.06	20.37
	4H	21.24	21.92	22.24	22.92	24.24	17.74	18.43	18.74	19.42	20.74
	6H	21.55	22.18	22.56	23.18	24.51	18.07	18.70	19.08	19.70	21.03
	8H	21.63	22.23	22.65	23.25	24.57	18.16	18.76	19.17	19.77	21.10
	12H	21.66	22.23	22.68	23.24	24.59	18.16	18.73	19.18	19.74	21.09
4H	2H	19.63	20.32	20.63	21.31	22.63	16.85	17.53	17.85	18.53	19.84
	3H	21.10	21.67	22.11	22.69	24.02	18.11	18.68	19.12	19.70	21.03
	4H	21.69	22.21	22.71	23.23	24.58	18.61	19.13	19.63	20.15	21.50
	6H	22.14	22.59	23.17	23.63	24.98	19.05	19.49	20.08	20.53	21.88
	8H	22.27	22.69	23.30	23.72	25.09	19.17	19.58	20.20	20.62	21.98
	12H	22.32	22.70	23.37	23.75	25.12	19.19	19.56	20.24	20.61	21.98
8H	4H	21.71	22.13	22.75	23.16	24.53	18.92	19.33	19.95	20.36	21.73
	6H	22.26	22.60	23.32	23.68	25.04	19.45	19.79	20.50	20.87	22.23
	8H	22.46	22.76	23.52	23.82	25.20	19.63	19.94	20.70	20.99	22.38
	12H	22.56	22.83	23.63	23.88	25.31	19.69	19.96	20.76	21.01	22.44
12H	4H	21.67	22.05	22.72	23.09	24.46	18.93	19.30	19.98	20.35	21.72
	6H	22.25	22.55	23.31	23.61	24.99	19.51	19.81	20.57	20.87	22.25
	8H	22.46	22.72	23.52	23.78	25.20	19.71	19.98	20.78	21.03	22.46