

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: P854940

Luminaire Tested: SQ2-PH1-150U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-150U-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: -

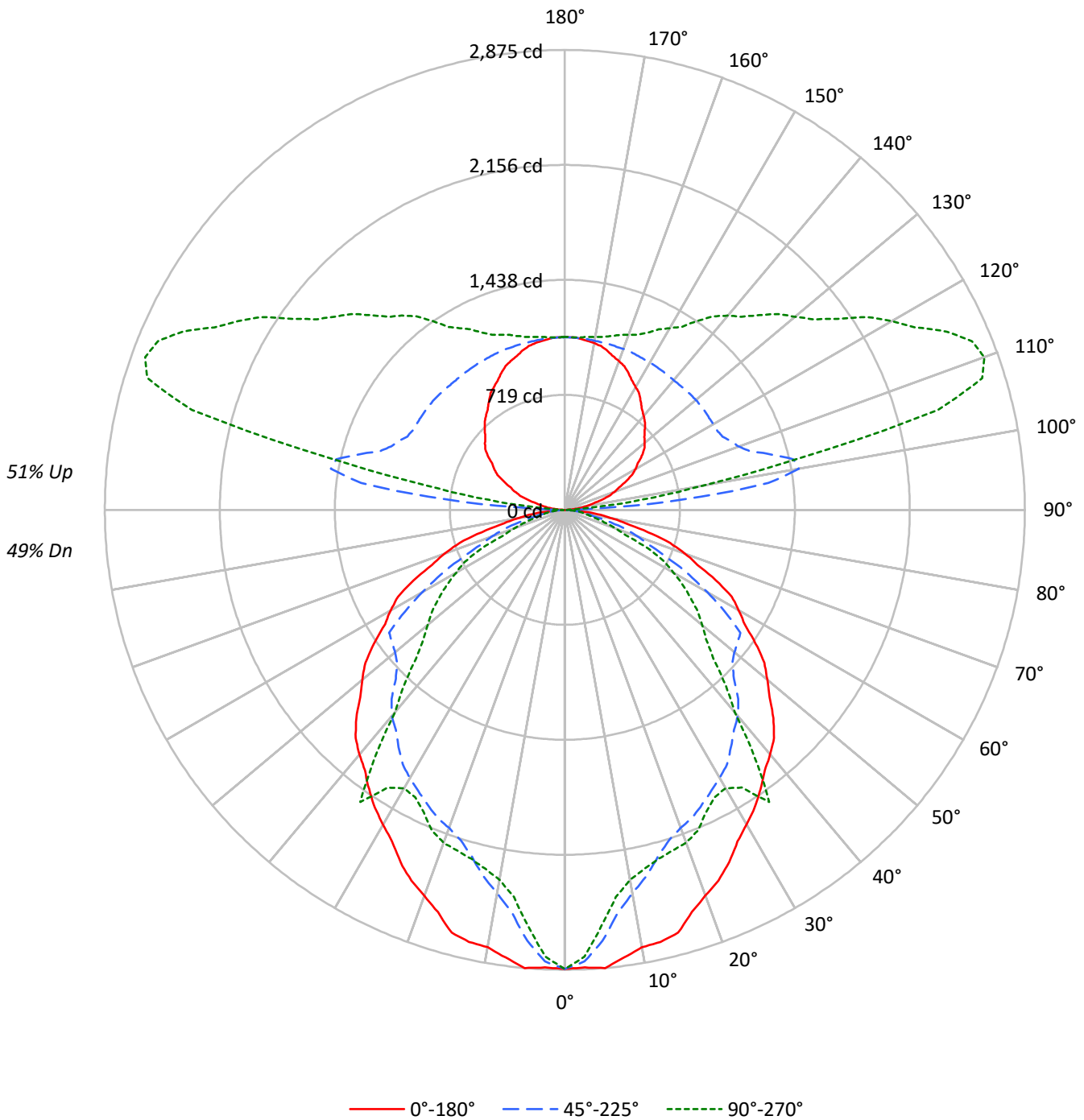
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13013.8 lumens
Efficiency: N/A
Efficacy: 123.0 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): 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	0	
RCR																						
0	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49				
1	98	94	90	86	90	86	83	80	73	70	68	60	59	57	49	48	47	42				
2	89	82	76	71	82	76	70	66	64	60	57	53	50	48	43	41	40	35				
3	81	72	65	59	75	67	60	55	57	52	48	47	44	41	38	36	34	30				
4	74	64	56	50	68	59	52	47	50	45	41	42	38	35	34	32	29	26				
5	68	57	49	43	63	53	46	40	45	39	35	38	34	30	31	28	26	22				
6	63	51	43	37	58	47	40	35	41	35	31	34	30	27	28	25	23	20				
7	58	46	38	33	54	43	36	31	37	31	27	31	27	24	26	22	20	17				
8	54	42	34	29	50	39	32	27	33	28	24	28	24	21	24	20	18	16				
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	19	16	14				
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13				

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	1.9
10°-20°	664.2	5.1
20°-30°	973.9	7.5
30°-40°	1179.5	9.1
40°-50°	1159.9	8.9
50°-60°	1009.7	7.8
60°-70°	701.9	5.4
70°-80°	332.8	2.6
80°-90°	74.5	0.6
90°-100°	411.4	3.2
100°-110°	1347.2	10.4
110°-120°	1332.0	10.2
120°-130°	1088.8	8.4
130°-140°	888.5	6.8
140°-150°	691.5	5.3
150°-160°	497.9	3.8
160°-170°	304.6	2.3
170°-180°	102.9	0.8
0°-30°	1890.7	14.5
0°-40°	3070.1	23.6
0°-60°	5239.7	40.3
0°-90°	6349.0	48.8
90°-120°	3090.6	23.7
90°-150°	5759.4	44.3
90°-180°	6665.0	51.2
0°-180°	13013.8	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°	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°	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°	19.9	18.2	12.7	12.4	12.7
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	20.54	21.39	21.51	22.37	23.66	19.22	20.06	20.18	21.04	22.33
	3H	22.57	23.32	23.55	24.31	25.62	20.25	21.00	21.23	21.99	23.30
	4H	23.30	24.01	24.29	25.01	26.32	20.46	21.17	21.45	22.17	23.49
	6H	23.78	24.44	24.79	25.44	26.77	20.60	21.26	21.61	22.26	23.59
	8H	23.90	24.53	24.92	25.55	26.87	20.64	21.26	21.65	22.28	23.61
	12H	23.95	24.54	24.96	25.55	26.91	20.63	21.23	21.65	22.24	23.59
4H	2H	20.91	21.63	21.91	22.62	23.94	19.85	20.57	20.85	21.56	22.88
	3H	23.02	23.61	24.03	24.64	25.97	21.03	21.63	22.04	22.65	23.98
	4H	23.83	24.38	24.85	25.39	26.75	21.31	21.85	22.32	22.87	24.22
	6H	24.42	24.88	25.45	25.92	27.28	21.51	21.98	22.54	23.02	24.37
	8H	24.59	25.02	25.62	26.06	27.42	21.57	22.01	22.60	23.04	24.41
	12H	24.65	25.05	25.70	26.10	27.47	21.58	21.97	22.62	23.02	24.39
8H	4H	23.85	24.29	24.88	25.32	26.69	21.52	21.96	22.55	22.99	24.36
	6H	24.50	24.86	25.55	25.94	27.30	21.79	22.15	22.85	23.23	24.59
	8H	24.73	25.04	25.79	26.10	27.49	21.90	22.21	22.96	23.27	24.66
	12H	24.84	25.12	25.90	26.17	27.60	21.94	22.22	23.00	23.27	24.70
12H	4H	23.80	24.19	24.85	25.24	26.62	21.52	21.91	22.56	22.96	24.33
	6H	24.47	24.79	25.54	25.85	27.24	21.82	22.14	22.88	23.20	24.58
	8H	24.71	24.98	25.77	26.04	27.47	21.94	22.22	23.00	23.27	24.70