

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: P854150

Luminaire Tested: SQ2-PP3-150U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

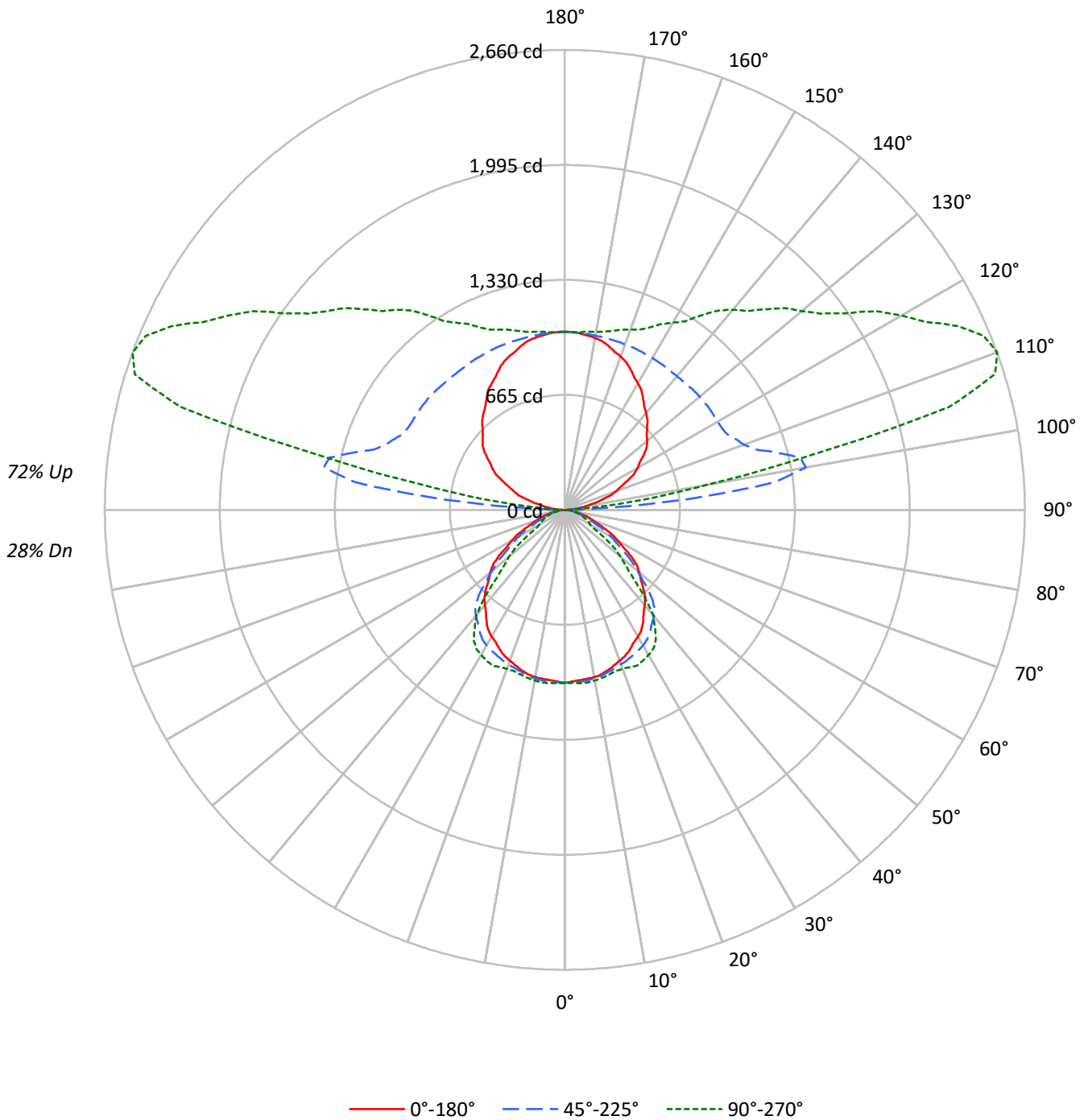
Test Method: LM-79-2019  
Report Number: P854150  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-150U-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8873.2 lumens  
Efficiency: N/A  
Efficacy: 119.3 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: Semi-Indirect  
  
Input Watts (W): 74.4  
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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	28		
1	93	89	86	82	83	80	77	74	63	61	59	47	46	45	33	32	31	25		
2	85	78	72	68	76	70	65	61	55	52	49	42	40	38	29	28	27	21		
3	78	69	62	57	69	62	56	51	49	45	42	37	34	32	26	24	23	18		
4	71	61	54	48	63	55	49	44	44	39	36	33	30	28	23	21	20	16		
5	65	54	47	41	58	49	42	37	39	34	31	30	26	24	21	19	17	14		
6	60	49	41	35	54	44	37	32	35	30	27	27	23	21	19	17	15	12		
7	55	44	36	31	50	40	33	28	32	27	23	24	21	19	17	15	14	11		
8	51	40	32	27	46	36	29	25	29	24	21	22	19	16	16	14	12	10		
9	48	36	29	24	43	33	26	22	26	22	18	20	17	15	15	13	11	9		
10	44	33	26	21	40	30	24	20	24	20	16	19	15	13	14	11	10	8		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	16157	16157	16157
5°	16029	16167	16321
10°	16111	16233	16441
15°	16072	16231	16478
20°	15957	16338	16811
25°	15866	16545	17696
30°	15776	16882	18064
35°	15554	16929	18096
40°	15137	16899	16720
45°	14684	16134	12727
50°	14109	13762	10603
55°	13132	11583	7623
60°	11305	9939	5464
65°	9536	7679	5375
70°	7940	6043	5146
75°	6731	5215	4816
80°	5709	4528	4324
85°	4502	3724	2353

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 16134 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.3	1.1
10°-20°	275.8	3.1
20°-30°	432.0	4.9
30°-40°	532.9	6.0
40°-50°	501.8	5.7
50°-60°	355.3	4.0
60°-70°	202.4	2.3
70°-80°	100.2	1.1
80°-90°	25.6	0.3
90°-100°	392.1	4.4
100°-110°	1284.0	14.5
110°-120°	1269.4	14.3
120°-130°	1037.7	11.7
130°-140°	846.8	9.5
140°-150°	659.0	7.4
150°-160°	474.5	5.3
160°-170°	290.3	3.3
170°-180°	98.1	1.1
0°-30°	803.0	9.1
0°-40°	1336.0	15.1
0°-60°	2193.0	24.7
0°-90°	2521.2	28.4
90°-120°	2945.6	33.2
90°-150°	5489.1	61.9
90°-180°	6352.0	71.6
0°-180°	8873.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1001	1001	1001	1001	1001	
5°	989	1007	998	1000	1007	94
15°	962	975	971	981	986	271
25°	891	913	929	966	993	410
35°	789	811	859	908	918	492
45°	643	692	707	599	557	495
55°	466	494	412	310	271	412
65°	250	263	201	142	141	251
75°	108	119	84	78	77	117
85°	24	22	20	16	13	29
90°	1	3	8	7	8	4
95°	55	160	713	254	165	62
105°	223	318	1274	2422	2300	235
115°	402	480	1036	2140	2512	397
125°	560	624	1021	1687	1982	498
135°	674	745	1012	1455	1640	521
145°	788	846	1010	1252	1372	494
155°	898	928	1016	1120	1164	413
165°	980	990	1021	1060	1071	276
175°	1025	1025	1026	1033	1031	97
180°	1029	1029	1029	1029	1029	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1000.7	1000.7	1000.7	1000.7	1000.7
2.5°	993.0	1007.1	998.1	999.8	1001.5
5°	989.0	1006.6	997.5	999.8	1007.0
7.5°	985.2	1003.2	994.3	998.1	1007.0
10°	982.7	998.2	990.1	995.5	1002.8
12.5°	975.1	989.7	982.5	989.6	996.0
15°	961.5	975.0	971.0	980.7	985.8
17.5°	943.1	959.5	959.4	973.1	978.4
20°	928.7	948.4	950.9	968.1	978.4
22.5°	913.5	936.5	940.8	966.6	984.4
25°	890.6	913.4	928.7	966.4	993.3
27.5°	864.0	886.5	918.1	960.3	981.6
30°	846.2	867.9	905.5	949.3	968.9
32.5°	824.2	846.8	886.8	934.0	952.0
35°	789.1	810.8	858.9	907.8	918.1
37.5°	748.7	773.3	827.2	854.5	855.1
40°	718.2	750.3	801.8	806.8	793.3
42.5°	688.6	729.8	766.3	743.9	684.2
45°	643.1	691.7	706.6	598.8	557.4
47.5°	594.7	642.7	619.0	502.2	473.7
50°	561.7	607.2	547.9	448.9	422.1
52.5°	524.4	565.0	484.5	397.9	356.9
55°	466.5	494.4	411.5	310.1	270.8
57.5°	396.7	416.3	351.8	232.8	188.7
60°	350.1	365.6	307.8	191.0	169.2
62.5°	307.8	321.7	262.1	165.9	158.2
65°	249.6	263.1	201.0	141.7	140.7
67.5°	198.7	213.3	154.2	123.7	122.5
70°	168.2	183.7	128.0	111.0	109.0
72.5°	142.8	157.5	108.5	97.5	96.3
75°	107.9	119.3	83.6	78.3	77.2
77.5°	78.3	85.5	62.2	59.4	58.4
80°	61.4	64.5	48.7	47.6	46.5
82.5°	46.1	45.1	36.8	35.7	33.8
85°	24.3	22.3	20.1	15.8	12.7
87.5°	7.8	8.2	5.1	4.0	4.2
90°	1.1	3.1	8.5	7.4	8.5
92.5°	18.0	65.6	201.4	65.5	52.5
95°	55.0	159.5	712.9	253.9	165.0
97.5°	99.8	210.3	1223.1	739.9	458.6
100°	131.2	236.6	1415.2	1263.8	837.7
102.5°	166.7	269.7	1394.0	1862.2	1443.5
105°	223.2	318.3	1274.5	2421.5	2300.5
107.5°	278.8	366.1	1158.0	2473.8	2606.8
110°	315.2	400.0	1102.1	2412.9	2660.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	349.9	432.2	1068.3	2307.0	2623.7
115°	401.9	480.5	1035.5	2139.7	2512.0
117.5°	452.5	525.9	1023.0	1975.3	2353.4
120°	485.5	554.8	1019.6	1879.4	2247.6
122.5°	515.1	582.7	1019.6	1796.7	2138.4
125°	559.5	623.6	1020.7	1687.4	1982.1
127.5°	597.2	662.5	1019.4	1606.7	1863.2
130°	620.9	687.1	1018.6	1558.0	1789.6
132.5°	642.0	709.9	1016.0	1516.0	1726.1
135°	673.7	745.1	1012.2	1455.4	1640.5
137.5°	707.2	777.9	1009.9	1392.1	1559.5
140°	730.9	799.1	1009.0	1352.2	1510.4
142.5°	754.6	818.7	1009.0	1309.5	1452.8
145°	788.0	845.9	1010.1	1251.9	1371.8
147.5°	823.1	871.3	1011.6	1201.7	1292.3
150°	845.1	887.5	1013.3	1172.6	1249.1
152.5°	867.1	904.5	1014.1	1148.6	1211.9
155°	898.0	928.0	1016.4	1120.0	1163.5
157.5°	925.7	947.4	1018.8	1097.5	1129.0
160°	943.5	961.0	1019.6	1084.7	1109.5
162.5°	958.7	973.0	1019.6	1074.4	1092.6
165°	980.5	989.8	1020.7	1060.1	1071.4
167.5°	998.9	1003.4	1021.9	1048.9	1055.2
170°	1009.0	1011.1	1022.8	1042.9	1045.0
172.5°	1016.7	1017.9	1025.3	1038.7	1039.1
175°	1024.9	1024.9	1026.0	1033.3	1031.2
177.5°	1029.1	1028.3	1027.4	1032.4	1029.1
180°	1029.1	1029.1	1029.1	1029.1	1029.1

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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	14.76	15.44	15.88	16.55	18.11	11.15	11.83	12.28	12.95	14.50
	3H	15.84	16.44	16.97	17.57	19.14	12.24	12.85	13.38	13.98	15.54
	4H	16.17	16.75	17.32	17.87	19.45	12.70	13.27	13.84	14.40	15.97
	6H	16.38	16.91	17.53	18.03	19.62	13.03	13.56	14.19	14.69	16.28
	8H	16.42	16.92	17.58	18.07	19.64	13.11	13.62	14.27	14.76	16.34
	12H	16.43	16.91	17.59	18.04	19.64	13.12	13.60	14.28	14.74	16.34
4H	2H	14.84	15.42	15.99	16.54	18.12	11.84	12.42	13.00	13.55	15.12
	3H	16.13	16.61	17.29	17.76	19.35	13.08	13.56	14.23	14.71	16.29
	4H	16.60	17.04	17.76	18.18	19.78	13.62	14.06	14.78	15.20	16.81
	6H	16.93	17.30	18.09	18.47	20.06	14.06	14.43	15.22	15.59	17.19
	8H	17.02	17.37	18.18	18.52	20.13	14.17	14.52	15.34	15.68	17.29
	12H	17.05	17.36	18.23	18.53	20.15	14.19	14.51	15.37	15.68	17.29
8H	4H	16.60	16.96	17.77	18.11	19.72	13.88	14.24	15.05	15.39	17.00
	6H	17.03	17.32	18.22	18.52	20.12	14.42	14.71	15.61	15.91	17.52
	8H	17.19	17.44	18.38	18.61	20.24	14.61	14.86	15.80	16.04	17.66
	12H	17.27	17.49	18.46	18.66	20.32	14.68	14.90	15.87	16.07	17.73
12H	4H	16.56	16.87	17.74	18.04	19.66	13.88	14.20	15.07	15.37	16.98
	6H	17.02	17.27	18.21	18.45	20.07	14.48	14.73	15.67	15.90	17.53
	8H	17.18	17.40	18.38	18.58	20.24	14.68	14.90	15.87	16.07	17.73