

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: P853565

Luminaire Tested: SQ2-BBM-150U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

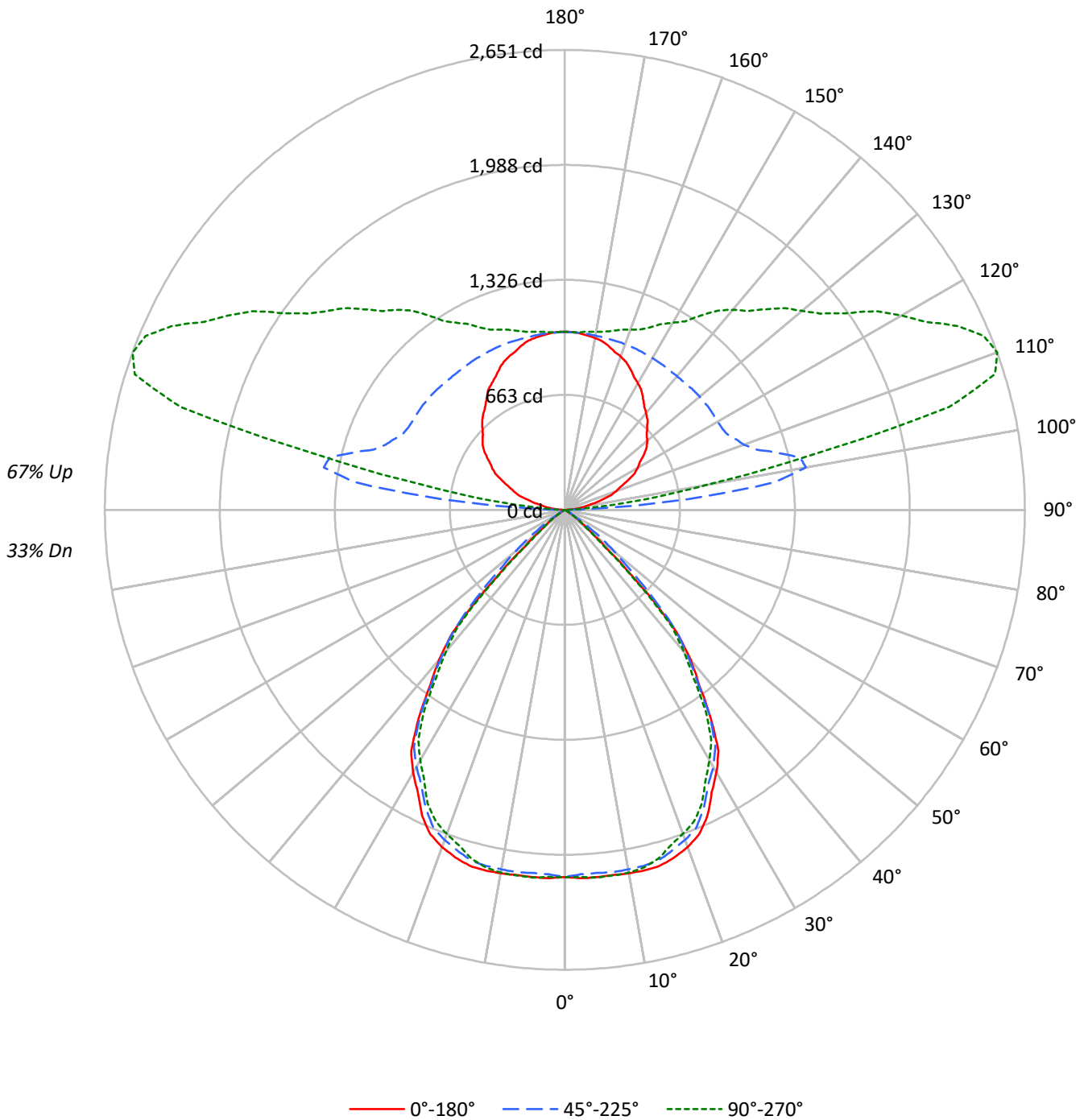
Test Method: LM-79-2019  
Report Number: P853565  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2104-222-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-150U-075D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9494.9 lumens  
Efficiency: N/A  
Efficacy: 112.9 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 84.1  
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: P853565  
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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	0
RCR																		
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	95	92	88	85	86	83	80	78	67	65	63	52	51	50	38	37	37	31
2	88	82	76	72	79	74	70	66	60	57	55	47	45	44	35	34	33	28
3	81	73	67	62	73	67	61	57	54	51	48	43	41	39	33	31	30	25
4	75	66	59	53	68	60	54	49	49	45	42	39	37	34	30	28	27	23
5	69	59	52	47	63	54	48	43	45	40	37	36	33	31	28	26	25	21
6	64	53	46	41	58	49	43	38	41	36	33	33	30	28	26	24	22	19
7	60	49	41	36	54	45	39	34	37	33	29	30	27	25	24	22	20	18
8	55	44	37	33	50	41	35	31	34	30	27	28	25	23	22	20	19	16
9	52	41	34	29	47	38	32	28	32	27	24	26	23	21	21	19	17	15
10	48	37	31	26	44	35	29	25	29	25	22	24	21	19	19	17	16	14

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

	0°	45°	90°
0°	34168	34168	34168
5°	34434	34057	34486
10°	34869	34503	34816
15°	35497	34965	34788
20°	35541	34795	34160
25°	34663	33777	33305
30°	32585	31875	31066
35°	28919	28691	27835
40°	23718	23315	22447
45°	14141	16630	13271
50°	4413	9226	4175
55°	1669	3277	1669
60°	103	924	36
65°	0	42	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 16630 cd/sqm



TEST NUMBER: P853565

CATALOG NUMBER: SQ2-BBM-150U-075D-940-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.3	2.1
10°-20°	592.7	6.2
20°-30°	871.9	9.2
30°-40°	891.2	9.4
40°-50°	513.4	5.4
50°-60°	88.5	0.9
60°-70°	3.2	0.0
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	390.8	4.1
100°-110°	1279.7	13.5
110°-120°	1265.1	13.3
120°-130°	1034.2	10.9
130°-140°	843.9	8.9
140°-150°	656.8	6.9
150°-160°	472.9	5.0
160°-170°	289.3	3.0
170°-180°	97.8	1.0
0°-30°	1666.9	17.6
0°-40°	2558.1	26.9
0°-60°	3160.0	33.3
0°-90°	3164.7	33.3
90°-120°	2935.6	30.9
90°-150°	5470.5	57.6
90°-180°	6330.0	66.7
0°-180°	9494.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2116	2116	2116	2116	2116	
5°	2125	2120	2101	2130	2128	203
15°	2124	2141	2092	2095	2081	598
25°	1946	1963	1896	1877	1870	888
35°	1467	1479	1456	1428	1412	906
45°	619	711	728	688	581	479
55°	59	68	116	66	59	63
65°	0	0	1	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	3	8	7	8	3
95°	55	159	710	253	164	62
105°	222	317	1270	2413	2293	234
115°	401	479	1032	2132	2504	396
125°	558	622	1017	1682	1975	496
135°	672	743	1009	1450	1635	520
145°	785	843	1007	1248	1367	492
155°	895	925	1013	1116	1160	412
165°	977	986	1017	1056	1068	275
175°	1021	1021	1022	1030	1028	97
180°	1026	1026	1026	1026	1026	



TEST NUMBER: P853565

CATALOG NUMBER: SQ2-BBM-150U-075D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2116.2	2116.2	2116.2	2116.2	2116.2
2.5°	2125.5	2119.7	2102.6	2122.0	2117.9
5°	2124.6	2119.5	2101.3	2129.9	2127.8
7.5°	2123.4	2119.8	2107.1	2130.4	2125.3
10°	2126.8	2125.7	2104.5	2128.8	2123.6
12.5°	2128.4	2134.9	2102.0	2121.0	2111.7
15°	2123.6	2141.2	2091.8	2094.7	2081.2
17.5°	2099.9	2124.7	2059.0	2046.9	2027.9
20°	2068.5	2097.5	2025.1	2004.6	1988.1
22.5°	2024.5	2051.0	1981.9	1956.4	1943.2
25°	1945.7	1963.3	1896.0	1876.8	1869.5
27.5°	1834.2	1839.1	1788.4	1764.5	1755.2
30°	1747.8	1747.8	1709.7	1683.9	1666.3
32.5°	1647.0	1644.5	1617.3	1589.0	1571.4
35°	1467.2	1478.6	1455.6	1427.7	1412.2
37.5°	1272.7	1277.0	1259.5	1229.6	1216.6
40°	1125.3	1126.3	1106.2	1084.6	1065.0
42.5°	953.4	974.3	955.5	921.4	913.4
45°	619.3	711.4	728.3	687.8	581.2
47.5°	311.2	425.9	497.8	386.6	273.8
50°	175.7	244.0	367.3	204.5	166.2
52.5°	117.3	147.5	254.7	133.7	112.0
55°	59.3	67.6	116.4	65.5	59.3
57.5°	20.1	31.3	50.6	32.4	22.2
60°	3.2	13.5	28.6	10.4	1.1
62.5°	0.6	3.5	17.6	2.9	0.2
65°	0.0	0.0	1.1	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.2	0.6	1.7	1.5	1.7
90°	1.1	3.1	8.4	7.4	8.4
92.5°	17.9	65.3	200.7	65.3	52.3
95°	54.8	158.9	710.5	253.1	164.4
97.5°	99.5	209.6	1219.0	737.4	457.1
100°	130.7	235.8	1410.4	1259.5	834.9
102.5°	166.1	268.8	1389.3	1855.9	1438.7
105°	222.4	317.2	1270.2	2413.3	2292.7
107.5°	277.9	364.9	1154.0	2465.4	2598.0
110°	314.1	398.6	1098.4	2404.8	2651.1



TEST NUMBER: P853565

CATALOG NUMBER: SQ2-BBM-150U-075D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	348.7	430.7	1064.7	2299.2	2614.8
115°	400.6	478.9	1032.0	2132.5	2503.5
117.5°	451.0	524.1	1019.5	1968.6	2345.4
120°	483.8	552.9	1016.2	1873.1	2240.0
122.5°	513.4	580.8	1016.2	1790.7	2131.2
125°	557.6	621.5	1017.2	1681.7	1975.4
127.5°	595.2	660.3	1016.0	1601.3	1856.9
130°	618.8	684.7	1015.1	1552.7	1783.6
132.5°	639.8	707.5	1012.6	1510.9	1720.3
135°	671.5	742.6	1008.8	1450.4	1634.9
137.5°	704.8	775.3	1006.5	1387.4	1554.2
140°	728.4	796.4	1005.6	1347.6	1505.3
142.5°	752.0	815.9	1005.6	1305.1	1447.9
145°	785.3	843.0	1006.7	1247.6	1367.2
147.5°	820.3	868.3	1008.2	1197.6	1287.9
150°	842.2	884.5	1009.8	1168.6	1244.9
152.5°	864.2	901.5	1010.7	1144.7	1207.8
155°	894.9	924.8	1013.0	1116.2	1159.5
157.5°	922.6	944.2	1015.3	1093.8	1125.2
160°	940.3	957.8	1016.2	1081.0	1105.8
162.5°	955.5	969.7	1016.2	1070.8	1088.9
165°	977.2	986.4	1017.2	1056.5	1067.8
167.5°	995.5	1000.0	1018.5	1045.4	1051.6
170°	1005.6	1007.7	1019.3	1039.4	1041.5
172.5°	1013.2	1014.5	1021.9	1035.2	1035.6
175°	1021.4	1021.4	1022.5	1029.8	1027.8
177.5°	1025.7	1024.8	1024.0	1029.0	1025.7
180°	1025.7	1025.7	1025.7	1025.7	1025.7

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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	0.00	0.00	0.00	0.00	1.42	0.00	0.00	0.00	0.00	1.04
	3H	0.00	0.00	0.00	0.00	1.18	0.00	0.00	0.00	0.00	0.80
	4H	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.66
	6H	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.00	0.00	0.52
	8H	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00	0.44
	12H	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.37
4H	2H	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	0.67
	3H	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.41
	4H	0.00	0.00	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.27
	6H	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.11
	8H	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.03
	12H	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.03
	6H	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00