

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P388881

Luminaire Tested: **24CZ2-55VHE-SQR-UNV-L950-CD1-SDWPD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P388881  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-55VHE-SQR-UNV-L950-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4732.3 lumens  
Efficiency: N/A  
Efficacy: 131.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

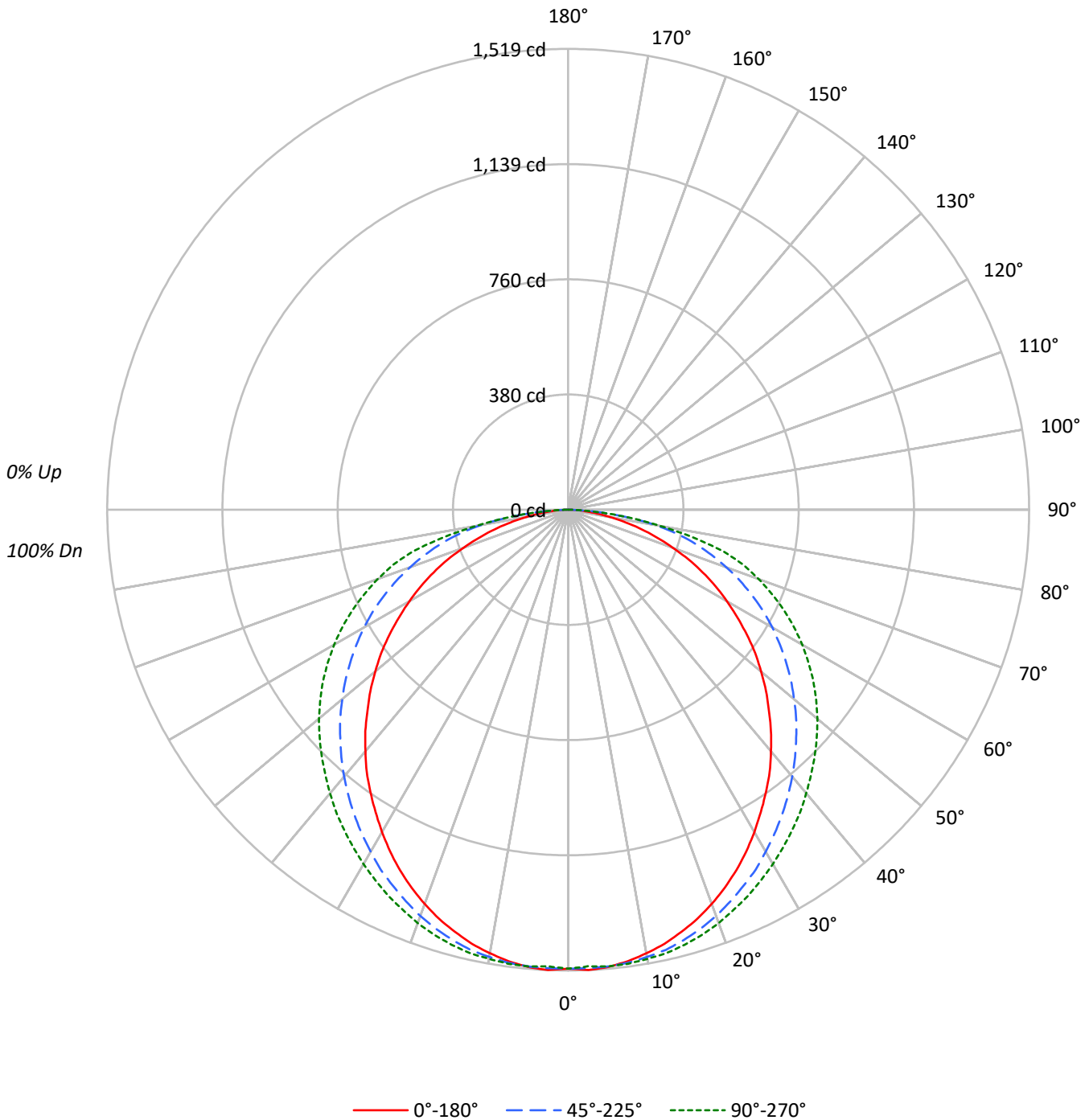
Input Watts (W): 36.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

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

	0°	45°	90°
0°	2035	2035	2035
5°	2043	2041	2041
10°	2028	2045	2054
15°	2007	2046	2068
20°	1980	2041	2076
25°	1946	2030	2083
30°	1906	2022	2095
35°	1866	2018	2115
40°	1825	2017	2144
45°	1778	2022	2186
50°	1737	2035	2244
55°	1686	2057	2313
60°	1628	2090	2397
65°	1557	2129	2498
70°	1445	2183	2625
75°	1308	2258	2746
80°	1102	2264	2361
85°	844	1714	1714



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.6	3.0
10°-20°	413.1	8.7
20°-30°	627.5	13.3
30°-40°	763.3	16.1
40°-50°	812.6	17.2
50°-60°	774.0	16.4
60°-70°	647.3	13.7
70°-80°	431.6	9.1
80°-90°	119.4	2.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1184.2	25.0
0°-40°	1947.5	41.2
0°-60°	3534.1	74.7
0°-90°	4732.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4732.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1513	1513	1513	1513	1513	
5°	1513	1503	1511	1511	1511	143
15°	1441	1444	1469	1480	1484	406
25°	1311	1328	1367	1391	1403	604
35°	1136	1169	1228	1269	1288	711
45°	934	984	1063	1122	1149	722
55°	719	781	877	953	986	643
65°	489	561	669	752	784	483
75°	252	331	434	508	528	267
85°	55	102	111	109	111	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1512.7	1512.7	1512.7	1512.7	1512.7
2.5°	1518.9	1508.0	1512.7	1512.7	1506.4
5°	1512.7	1503.3	1511.1	1511.1	1511.1
7.5°	1501.7	1493.9	1506.4	1509.5	1509.5
10°	1484.5	1481.4	1497.0	1501.7	1503.3
12.5°	1465.8	1464.2	1486.1	1492.4	1497.0
15°	1440.8	1443.9	1468.9	1479.9	1484.5
17.5°	1414.2	1420.5	1448.6	1464.2	1468.9
20°	1383.0	1392.3	1425.2	1440.8	1450.2
22.5°	1348.6	1362.7	1397.0	1415.8	1426.7
25°	1311.1	1328.3	1367.3	1390.8	1403.3
27.5°	1270.5	1292.3	1337.7	1364.2	1376.7
30°	1226.7	1251.7	1301.7	1333.0	1348.6
32.5°	1181.4	1211.1	1265.8	1300.1	1318.9
35°	1136.1	1168.9	1228.3	1268.9	1287.6
37.5°	1090.8	1123.6	1189.2	1233.0	1256.4
40°	1039.2	1078.2	1148.6	1197.0	1220.5
42.5°	989.2	1031.4	1106.4	1159.5	1184.5
45°	934.5	984.5	1062.6	1122.0	1148.6
47.5°	884.5	934.5	1018.9	1081.4	1111.1
50°	829.8	882.9	972.0	1040.7	1072.0
52.5°	776.7	831.3	925.1	998.6	1029.8
55°	718.8	781.3	876.7	953.2	986.1
57.5°	661.0	728.2	826.7	906.4	939.2
60°	604.8	673.5	776.7	856.3	890.7
62.5°	548.5	617.3	725.1	806.3	839.2
65°	489.1	561.0	668.8	751.6	784.5
67.5°	429.7	504.7	612.6	695.4	726.6
70°	367.2	446.9	554.8	636.0	667.3
72.5°	309.4	389.1	495.4	575.1	604.8
75°	251.6	331.3	434.4	507.9	528.2
77.5°	195.3	275.0	367.2	415.7	420.4
80°	142.2	217.2	292.2	306.3	304.7
82.5°	95.3	162.5	201.6	203.1	207.8
85°	54.7	101.6	111.0	109.4	111.0
87.5°	21.9	35.9	31.3	23.4	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)