

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: P391471

Luminaire Tested: **24CZ2-55VHE-HRP-UNV-L950-CD1-SWPD1-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: P391471  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-55VHE-HRP-UNV-L950-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4233.8 lumens  
Efficiency: N/A  
Efficacy: 117.3 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

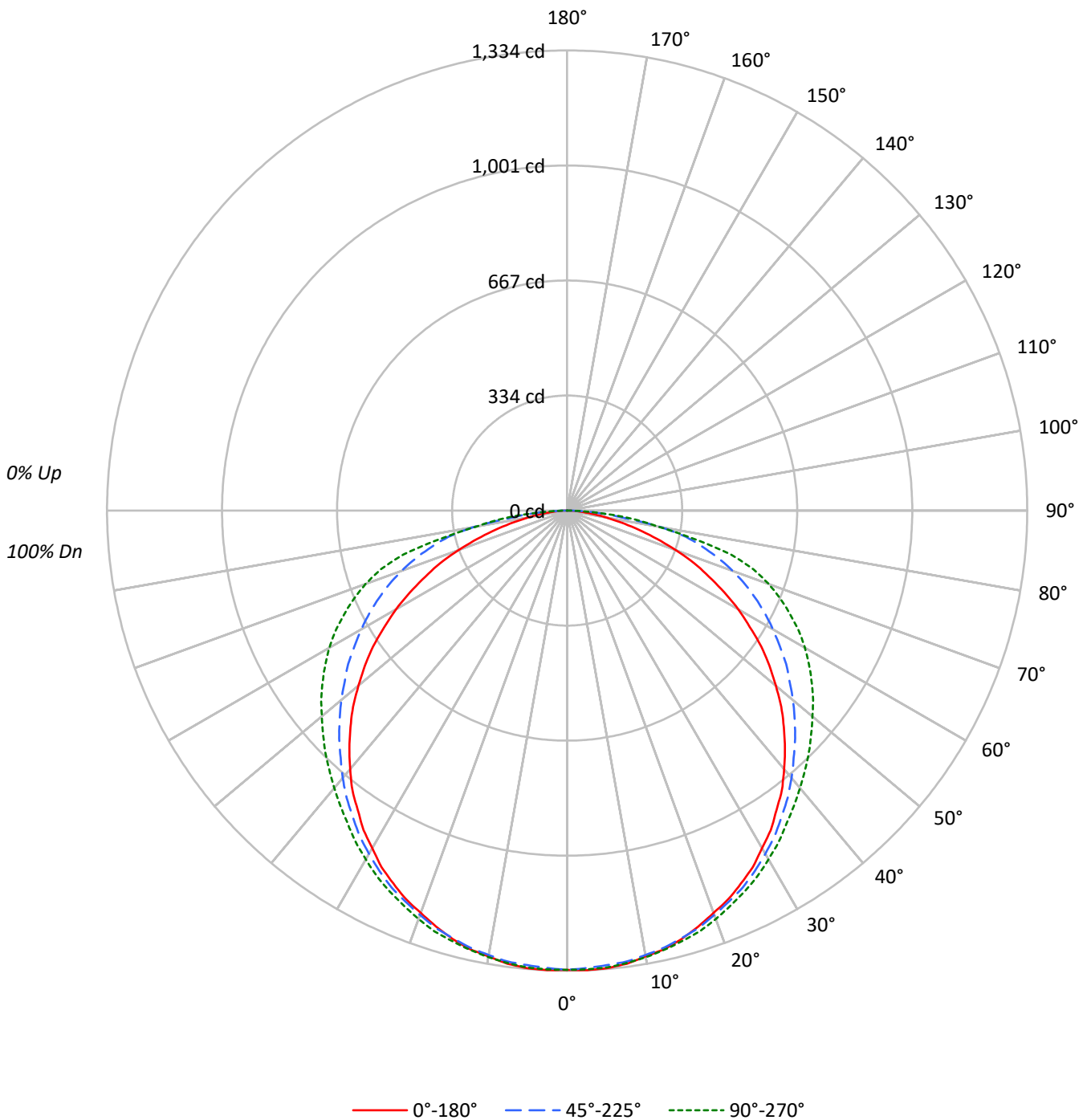
Input Watts (W): 36.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1791	1791	1791
5°	1798	1787	1795
10°	1793	1787	1796
15°	1790	1787	1799
20°	1777	1786	1804
25°	1771	1790	1808
30°	1755	1785	1814
35°	1738	1780	1821
40°	1719	1778	1844
45°	1690	1778	1886
50°	1653	1789	1943
55°	1611	1818	2030
60°	1543	1854	2142
65°	1444	1919	2273
70°	1314	2007	2445
75°	1114	2118	2555
80°	879	2132	2066
85°	648	1621	1815



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.3	3.0
10°-20°	363.5	8.6
20°-30°	555.8	13.1
30°-40°	679.5	16.0
40°-50°	724.2	17.1
50°-60°	692.4	16.4
60°-70°	586.6	13.9
70°-80°	394.2	9.3
80°-90°	111.2	2.6
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°	1045.6	24.7
0°-40°	1725.1	40.7
0°-60°	3141.8	74.2
0°-90°	4233.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4233.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1331	1331	1331	1331	1331	
5°	1331	1329	1323	1329	1329	126
15°	1285	1285	1283	1294	1292	362
25°	1193	1197	1205	1216	1218	550
35°	1058	1067	1084	1105	1109	663
45°	888	903	934	974	991	685
55°	687	712	775	836	865	612
65°	454	500	603	682	714	450
75°	214	292	407	477	491	229
85°	42	86	105	113	118	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1331.4	1331.4	1331.4	1331.4	1331.4
2.5°	1333.5	1333.5	1327.2	1331.4	1331.4
5°	1331.4	1329.3	1323.0	1329.3	1329.3
7.5°	1325.1	1323.0	1318.8	1325.1	1323.0
10°	1312.5	1312.5	1308.3	1314.6	1314.6
12.5°	1302.0	1299.9	1297.8	1306.2	1304.1
15°	1285.2	1285.2	1283.1	1293.6	1291.5
17.5°	1264.2	1266.3	1268.4	1276.8	1278.9
20°	1241.1	1245.3	1247.4	1260.0	1260.0
22.5°	1220.1	1222.2	1226.4	1239.0	1239.0
25°	1192.8	1197.0	1205.4	1215.9	1218.0
27.5°	1165.5	1167.6	1178.1	1192.8	1194.9
30°	1129.8	1136.1	1148.7	1165.5	1167.6
32.5°	1098.3	1104.6	1119.3	1136.1	1140.3
35°	1058.4	1066.8	1083.6	1104.6	1108.8
37.5°	1022.7	1029.0	1050.0	1073.1	1079.4
40°	978.6	991.2	1012.2	1039.5	1050.0
42.5°	934.5	947.1	972.3	1008.0	1020.6
45°	888.3	903.0	934.5	974.4	991.2
47.5°	842.1	858.9	894.6	940.8	959.7
50°	789.6	810.6	854.7	907.2	928.2
52.5°	739.2	764.4	812.7	871.5	898.8
55°	686.7	711.9	774.9	835.8	865.2
57.5°	627.9	661.5	730.8	800.1	831.6
60°	573.3	604.8	688.8	764.4	795.9
62.5°	514.5	556.5	646.8	726.6	758.1
65°	453.6	499.8	602.7	682.5	714.0
67.5°	399.0	449.4	558.6	638.4	669.9
70°	333.9	396.9	510.3	590.1	621.6
72.5°	273.0	342.3	459.9	537.6	567.0
75°	214.2	291.9	407.4	476.7	491.4
77.5°	159.6	241.5	352.8	382.2	371.7
80°	113.4	193.2	275.1	260.4	266.7
82.5°	73.5	147.0	170.1	193.2	199.5
85°	42.0	86.1	105.0	113.4	117.6
87.5°	18.9	31.5	42.0	42.0	39.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)