

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: P391465

Luminaire Tested: **24CZ2-55VHE-HRP-UNV-L935-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: P391465  
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-L935-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3947.8 lumens  
Efficiency: N/A  
Efficacy: 109.4 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

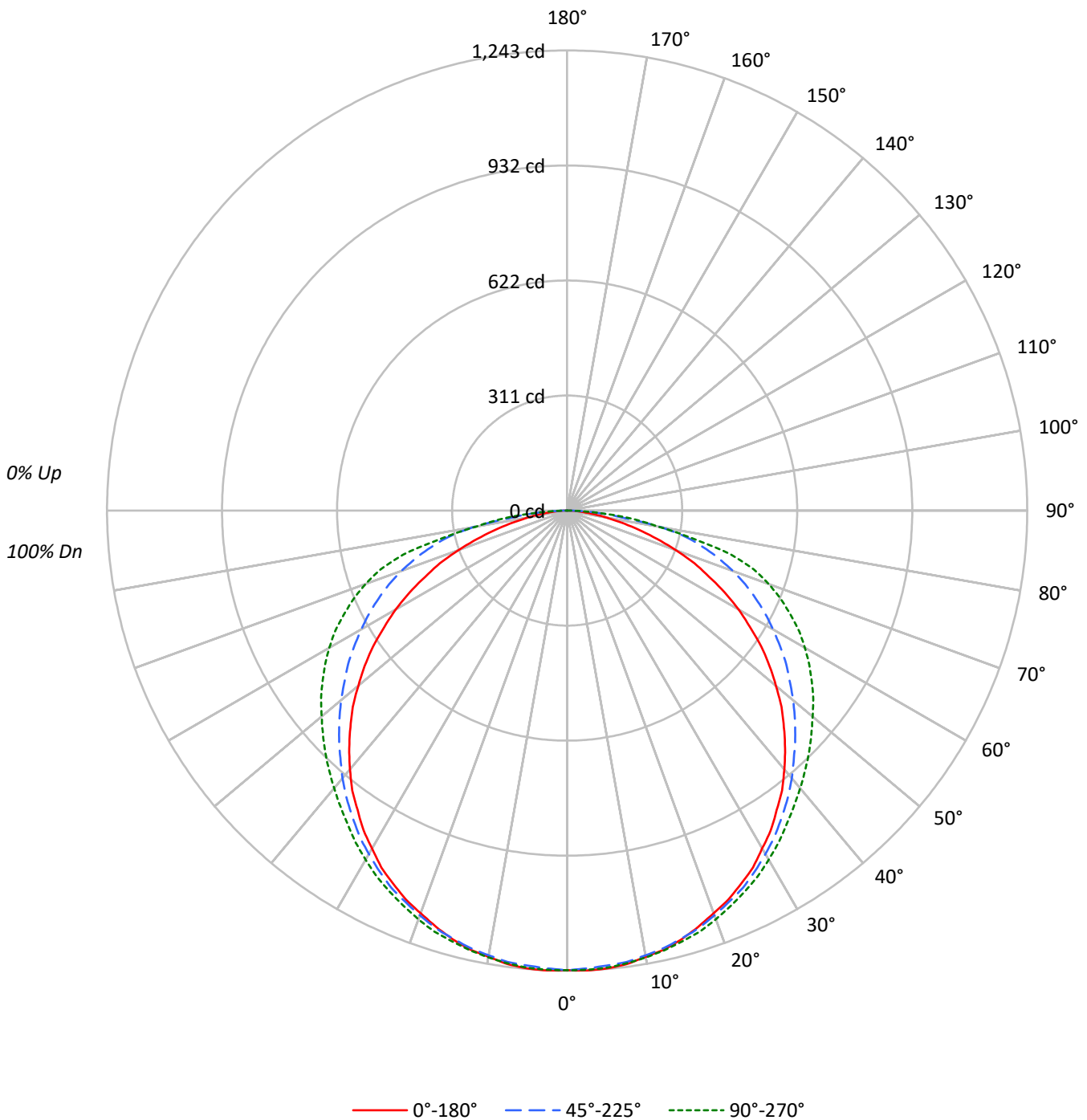
Input Watts (W): 36.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1670	1670	1670
5°	1677	1666	1674
10°	1672	1667	1675
15°	1669	1667	1678
20°	1657	1665	1682
25°	1651	1669	1686
30°	1637	1664	1691
35°	1621	1660	1698
40°	1603	1658	1720
45°	1576	1658	1759
50°	1541	1668	1812
55°	1502	1695	1893
60°	1439	1728	1997
65°	1347	1789	2120
70°	1225	1872	2280
75°	1038	1975	2382
80°	819	1987	1927
85°	605	1511	1694



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.8	3.0
10°-20°	338.9	8.6
20°-30°	518.3	13.1
30°-40°	633.6	16.0
40°-50°	675.3	17.1
50°-60°	645.7	16.4
60°-70°	547.0	13.9
70°-80°	367.6	9.3
80°-90°	103.7	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°	975.0	24.7
0°-40°	1608.6	40.7
0°-60°	2929.5	74.2
0°-90°	3947.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3947.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1242	1242	1242	1242	1242	
5°	1242	1240	1234	1240	1240	118
15°	1198	1198	1196	1206	1204	338
25°	1112	1116	1124	1134	1136	513
35°	987	995	1010	1030	1034	618
45°	828	842	871	909	924	639
55°	640	664	723	779	807	570
65°	423	466	562	636	666	420
75°	200	272	380	444	458	214
85°	39	80	98	106	110	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1241.5	1241.5	1241.5	1241.5	1241.5
2.5°	1243.4	1243.4	1237.6	1241.5	1241.5
5°	1241.5	1239.5	1233.6	1239.5	1239.5
7.5°	1235.6	1233.6	1229.7	1235.6	1233.6
10°	1223.8	1223.8	1219.9	1225.8	1225.8
12.5°	1214.1	1212.1	1210.1	1218.0	1216.0
15°	1198.4	1198.4	1196.4	1206.2	1204.3
17.5°	1178.8	1180.8	1182.7	1190.6	1192.5
20°	1157.3	1161.2	1163.1	1174.9	1174.9
22.5°	1137.7	1139.6	1143.6	1155.3	1155.3
25°	1112.2	1116.1	1124.0	1133.8	1135.7
27.5°	1086.8	1088.7	1098.5	1112.2	1114.2
30°	1053.5	1059.4	1071.1	1086.8	1088.7
32.5°	1024.1	1030.0	1043.7	1059.4	1063.3
35°	986.9	994.7	1010.4	1030.0	1033.9
37.5°	953.6	959.5	979.1	1000.6	1006.5
40°	912.5	924.2	943.8	969.3	979.1
42.5°	871.4	883.1	906.6	939.9	951.7
45°	828.3	842.0	871.4	908.6	924.2
47.5°	785.2	800.9	834.2	877.3	894.9
50°	736.3	755.8	797.0	845.9	865.5
52.5°	689.3	712.8	757.8	812.6	838.1
55°	640.3	663.8	722.6	779.3	806.8
57.5°	585.5	616.8	681.4	746.1	775.4
60°	534.6	563.9	642.3	712.8	742.1
62.5°	479.7	518.9	603.1	677.5	706.9
65°	423.0	466.0	562.0	636.4	665.8
67.5°	372.0	419.0	520.9	595.3	624.7
70°	311.3	370.1	475.8	550.2	579.6
72.5°	254.6	319.2	428.8	501.3	528.7
75°	199.7	272.2	379.9	444.5	458.2
77.5°	148.8	225.2	329.0	356.4	346.6
80°	105.7	180.2	256.5	242.8	248.7
82.5°	68.5	137.1	158.6	180.2	186.0
85°	39.2	80.3	97.9	105.7	109.7
87.5°	17.6	29.4	39.2	39.2	37.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)