

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: P391470

Luminaire Tested: **24CZ2-55VHE-HRP-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: P391470  
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-SDWPD1-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: 4182.6 lumens  
Efficiency: N/A  
Efficacy: 115.9 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

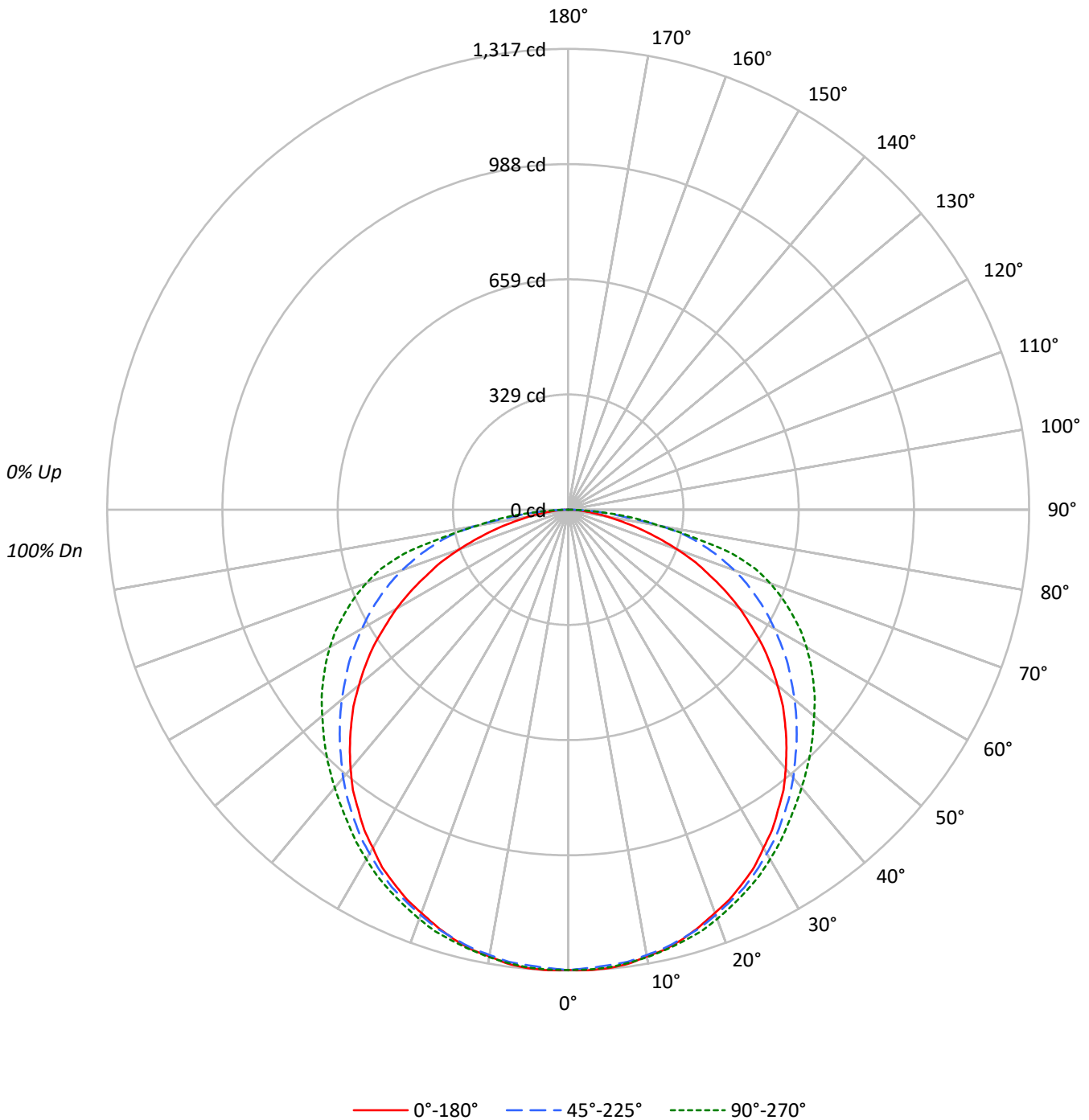
Input Watts (W): 36.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1770	1770	1770
5°	1776	1765	1774
10°	1771	1766	1774
15°	1769	1766	1777
20°	1756	1764	1782
25°	1749	1768	1786
30°	1734	1763	1792
35°	1717	1758	1799
40°	1698	1756	1822
45°	1670	1757	1863
50°	1633	1768	1919
55°	1591	1796	2005
60°	1524	1831	2116
65°	1427	1896	2246
70°	1298	1983	2416
75°	1100	2092	2524
80°	868	2106	2042
85°	641	1601	1794



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.8	3.0
10°-20°	359.1	8.6
20°-30°	549.1	13.1
30°-40°	671.3	16.0
40°-50°	715.5	17.1
50°-60°	684.1	16.4
60°-70°	579.5	13.9
70°-80°	389.5	9.3
80°-90°	109.9	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°	1033.0	24.7
0°-40°	1704.3	40.7
0°-60°	3103.8	74.2
0°-90°	4182.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4182.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1315	1315	1315	1315	1315	
5°	1315	1313	1307	1313	1313	125
15°	1270	1270	1268	1278	1276	358
25°	1178	1182	1191	1201	1203	543
35°	1046	1054	1070	1091	1095	655
45°	878	892	923	963	979	677
55°	678	703	766	826	855	604
65°	448	494	595	674	705	445
75°	212	288	402	471	486	227
85°	42	85	104	112	116	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1315.3	1315.3	1315.3	1315.3	1315.3
2.5°	1317.4	1317.4	1311.2	1315.3	1315.3
5°	1315.3	1313.2	1307.0	1313.2	1313.2
7.5°	1309.1	1307.0	1302.9	1309.1	1307.0
10°	1296.6	1296.6	1292.5	1298.7	1298.7
12.5°	1286.3	1284.2	1282.1	1290.4	1288.3
15°	1269.7	1269.7	1267.6	1278.0	1275.9
17.5°	1248.9	1251.0	1253.1	1261.4	1263.4
20°	1226.1	1230.2	1232.3	1244.8	1244.8
22.5°	1205.4	1207.4	1211.6	1224.0	1224.0
25°	1178.4	1182.5	1190.8	1201.2	1203.3
27.5°	1151.4	1153.5	1163.9	1178.4	1180.5
30°	1116.1	1122.4	1134.8	1151.4	1153.5
32.5°	1085.0	1091.2	1105.8	1122.4	1126.5
35°	1045.6	1053.9	1070.5	1091.2	1095.4
37.5°	1010.3	1016.6	1037.3	1060.1	1066.4
40°	966.8	979.2	1000.0	1026.9	1037.3
42.5°	923.2	935.7	960.5	995.8	1008.3
45°	877.6	892.1	923.2	962.6	979.2
47.5°	831.9	848.5	883.8	929.4	948.1
50°	780.1	800.8	844.4	896.2	917.0
52.5°	730.3	755.2	802.9	861.0	887.9
55°	678.4	703.3	765.5	825.7	854.7
57.5°	620.3	653.5	722.0	790.4	821.5
60°	566.4	597.5	680.5	755.2	786.3
62.5°	508.3	549.8	639.0	717.8	748.9
65°	448.1	493.8	595.4	674.3	705.4
67.5°	394.2	444.0	551.8	630.7	661.8
70°	329.9	392.1	504.1	583.0	614.1
72.5°	269.7	338.2	454.3	531.1	560.1
75°	211.6	288.4	402.5	470.9	485.5
77.5°	157.7	238.6	348.5	377.6	367.2
80°	112.0	190.9	271.8	257.3	263.5
82.5°	72.6	145.2	168.0	190.9	197.1
85°	41.5	85.1	103.7	112.0	116.2
87.5°	18.7	31.1	41.5	41.5	39.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)