

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: P391472

Luminaire Tested: **24CZ2-55VHE-HRP-UNV-L950-CD1-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: P391472  
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-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: 4286.9 lumens  
Efficiency: N/A  
Efficacy: 118.8 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

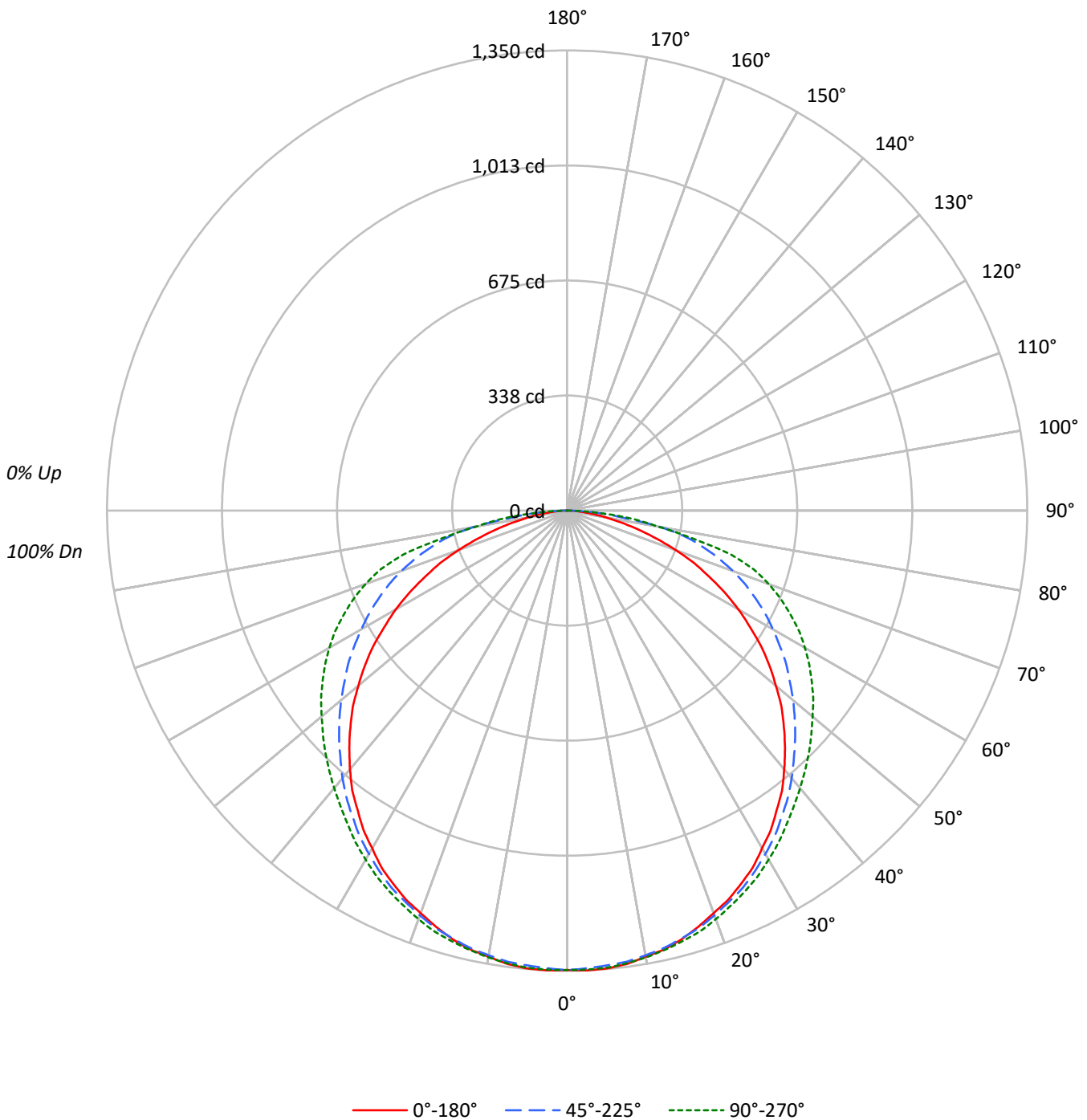
Input Watts (W): 36.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1814	1814	1814
5°	1821	1809	1818
10°	1816	1810	1819
15°	1813	1810	1822
20°	1799	1809	1827
25°	1793	1812	1831
30°	1777	1807	1837
35°	1760	1802	1844
40°	1740	1800	1867
45°	1711	1800	1910
50°	1674	1811	1967
55°	1631	1841	2055
60°	1562	1877	2169
65°	1462	1943	2302
70°	1330	2033	2476
75°	1128	2144	2587
80°	890	2159	2092
85°	656	1641	1839



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.9	3.0
10°-20°	368.0	8.6
20°-30°	562.8	13.1
30°-40°	688.0	16.0
40°-50°	733.3	17.1
50°-60°	701.1	16.4
60°-70°	593.9	13.9
70°-80°	399.2	9.3
80°-90°	112.6	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°	1058.7	24.7
0°-40°	1746.8	40.7
0°-60°	3181.2	74.2
0°-90°	4286.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4286.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1348	1348	1348	1348	1348	
5°	1348	1346	1340	1346	1346	128
15°	1301	1301	1299	1310	1308	367
25°	1208	1212	1220	1231	1233	557
35°	1072	1080	1097	1118	1123	671
45°	899	914	946	987	1004	694
55°	695	721	785	846	876	619
65°	459	506	610	691	723	456
75°	217	296	412	483	498	232
85°	42	87	106	115	119	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1348.1	1348.1	1348.1	1348.1	1348.1
2.5°	1350.2	1350.2	1343.9	1348.1	1348.1
5°	1348.1	1346.0	1339.6	1346.0	1346.0
7.5°	1341.7	1339.6	1335.3	1341.7	1339.6
10°	1329.0	1329.0	1324.7	1331.1	1331.1
12.5°	1318.3	1316.2	1314.1	1322.6	1320.5
15°	1301.3	1301.3	1299.2	1309.8	1307.7
17.5°	1280.1	1282.2	1284.3	1292.8	1294.9
20°	1256.7	1260.9	1263.1	1275.8	1275.8
22.5°	1235.4	1237.5	1241.8	1254.5	1254.5
25°	1207.8	1212.0	1220.5	1231.2	1233.3
27.5°	1180.1	1182.3	1192.9	1207.8	1209.9
30°	1144.0	1150.4	1163.1	1180.1	1182.3
32.5°	1112.1	1118.5	1133.3	1150.4	1154.6
35°	1071.7	1080.2	1097.2	1118.5	1122.7
37.5°	1035.5	1041.9	1063.2	1086.6	1092.9
40°	990.9	1003.6	1024.9	1052.5	1063.2
42.5°	946.2	959.0	984.5	1020.6	1033.4
45°	899.4	914.3	946.2	986.6	1003.6
47.5°	852.7	869.7	905.8	952.6	971.7
50°	799.5	820.8	865.4	918.6	939.8
52.5°	748.5	774.0	822.9	882.4	910.1
55°	695.3	720.8	784.6	846.3	876.1
57.5°	635.8	669.8	740.0	810.1	842.0
60°	580.5	612.4	697.4	774.0	805.9
62.5°	521.0	563.5	654.9	735.7	767.6
65°	459.3	506.1	610.3	691.1	723.0
67.5°	404.0	455.0	565.6	646.4	678.3
70°	338.1	401.9	516.7	597.5	629.4
72.5°	276.4	346.6	465.7	544.3	574.1
75°	216.9	295.6	412.5	482.7	497.6
77.5°	161.6	244.5	357.2	387.0	376.4
80°	114.8	195.6	278.6	263.7	270.0
82.5°	74.4	148.8	172.2	195.6	202.0
85°	42.5	87.2	106.3	114.8	119.1
87.5°	19.1	31.9	42.5	42.5	40.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)