

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: P276623

Luminaire Tested: **24CZ2-40HE-S-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

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: P276623  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40HE-S-UNV-L92765-W2A1-U-6500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3842.8 lumens  
Efficiency: N/A  
Efficacy: 129.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

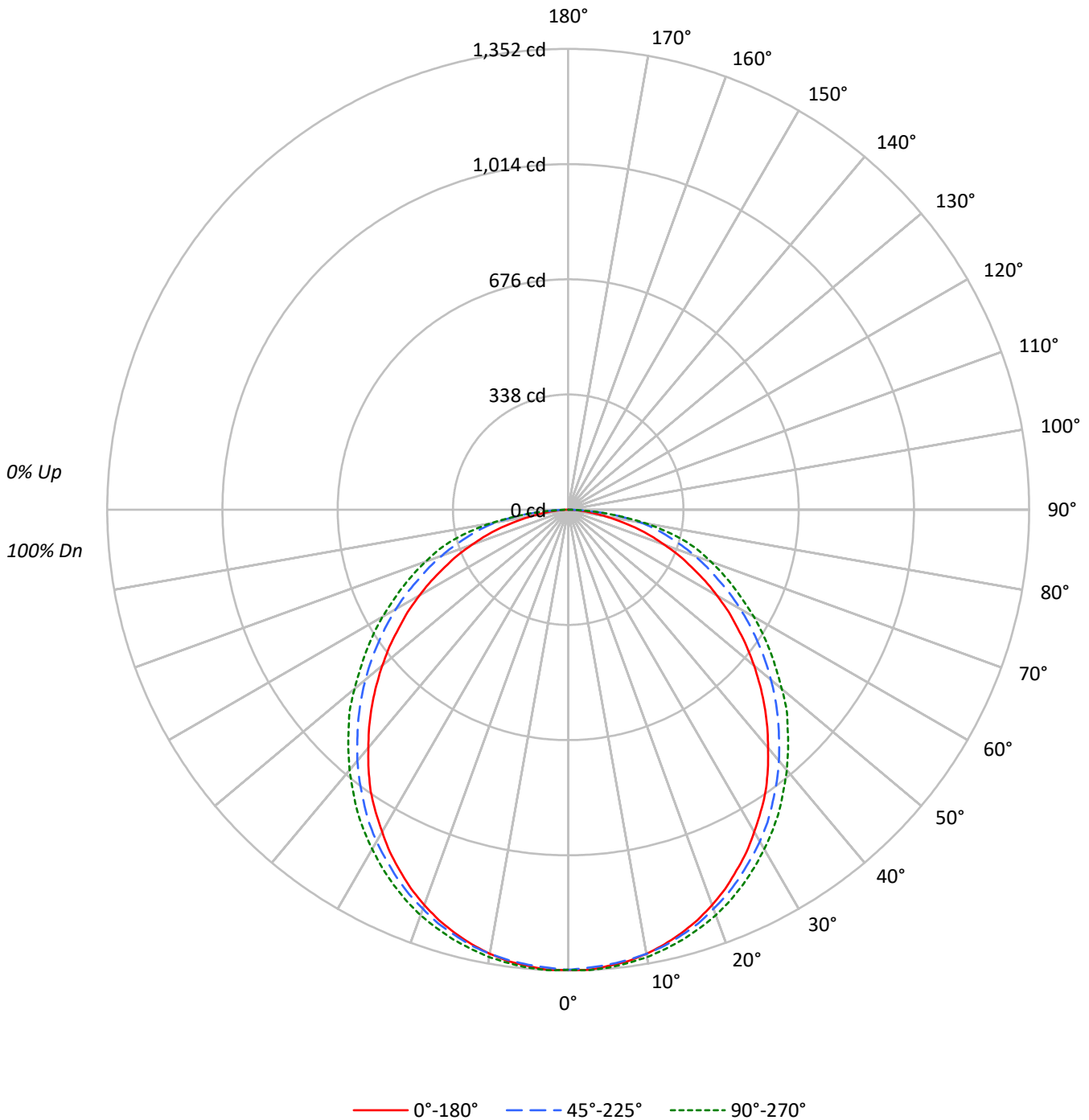
Input Watts (W): 29.574  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	1816	1816	1816
5°	1815	1810	1822
10°	1808	1808	1821
15°	1790	1799	1818
20°	1767	1784	1812
25°	1734	1767	1801
30°	1695	1747	1786
35°	1658	1718	1772
40°	1601	1689	1751
45°	1549	1656	1733
50°	1490	1625	1712
55°	1423	1595	1695
60°	1357	1570	1692
65°	1271	1543	1702
70°	1176	1551	1748
75°	1053	1580	1847
80°	852	1674	1806
85°	641	1470	1433



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.8	3.3
10°-20°	365.2	9.5
20°-30°	549.0	14.3
30°-40°	653.9	17.0
40°-50°	669.2	17.4
50°-60°	602.5	15.7
60°-70°	473.2	12.3
70°-80°	307.1	8.0
80°-90°	95.0	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°	1041.9	27.1
0°-40°	1695.8	44.1
0°-60°	2967.6	77.2
0°-90°	3842.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3842.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1350	1350	1350	1350	1350	
5°	1344	1346	1340	1348	1349	128
15°	1285	1289	1291	1302	1305	362
25°	1168	1178	1190	1210	1213	538
35°	1009	1022	1046	1072	1079	630
45°	814	834	870	903	911	628
55°	607	634	680	715	723	544
65°	399	430	485	525	535	397
75°	203	242	304	345	355	214
85°	42	77	95	93	93	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1350.0	1350.0	1350.0	1350.0	1350.0
2.5°	1351.2	1351.2	1345.1	1351.2	1352.4
5°	1343.9	1346.3	1340.2	1347.6	1348.8
7.5°	1336.6	1336.6	1332.9	1340.2	1341.5
10°	1323.1	1324.4	1323.1	1331.7	1332.9
12.5°	1306.1	1308.5	1309.7	1318.3	1319.5
15°	1285.3	1289.0	1291.4	1302.4	1304.8
17.5°	1262.1	1265.8	1271.9	1284.1	1286.5
20°	1234.0	1238.9	1246.2	1262.1	1265.8
22.5°	1203.5	1208.4	1220.6	1235.3	1241.4
25°	1168.1	1177.9	1190.1	1209.6	1213.3
27.5°	1132.7	1141.3	1157.1	1177.9	1182.8
30°	1091.2	1104.7	1124.2	1144.9	1149.8
32.5°	1050.9	1064.4	1087.6	1109.5	1115.6
35°	1009.4	1021.7	1046.1	1071.7	1079.0
37.5°	961.8	977.7	1004.6	1030.2	1037.5
40°	911.8	931.3	961.8	988.7	997.2
42.5°	864.2	884.9	915.5	944.8	954.5
45°	814.1	833.7	870.3	903.3	910.6
47.5°	762.9	784.9	823.9	856.9	869.1
50°	711.6	734.8	776.3	810.5	817.8
52.5°	660.3	684.8	728.7	765.3	769.0
55°	606.6	633.5	679.9	715.3	722.6
57.5°	557.8	581.0	631.1	667.7	676.2
60°	504.1	529.7	583.5	617.6	628.6
62.5°	452.8	479.7	535.8	570.0	579.8
65°	399.1	429.7	484.6	524.9	534.6
67.5°	352.8	382.1	440.6	479.7	489.5
70°	299.0	332.0	394.3	434.5	444.3
72.5°	252.7	286.8	349.1	388.2	402.8
75°	202.6	241.7	303.9	345.4	355.2
77.5°	153.8	199.0	262.4	294.2	294.2
80°	109.9	157.5	216.0	230.7	233.1
82.5°	72.0	118.4	159.9	158.7	158.7
85°	41.5	76.9	95.2	92.8	92.8
87.5°	15.9	31.7	34.2	34.2	33.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)