

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: P276063

Luminaire Tested: **24CZ2-40HE-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276063  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40HE-UNV-L82765-W2A1-U-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3846.4 lumens  
Efficiency: N/A  
Efficacy: 134.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

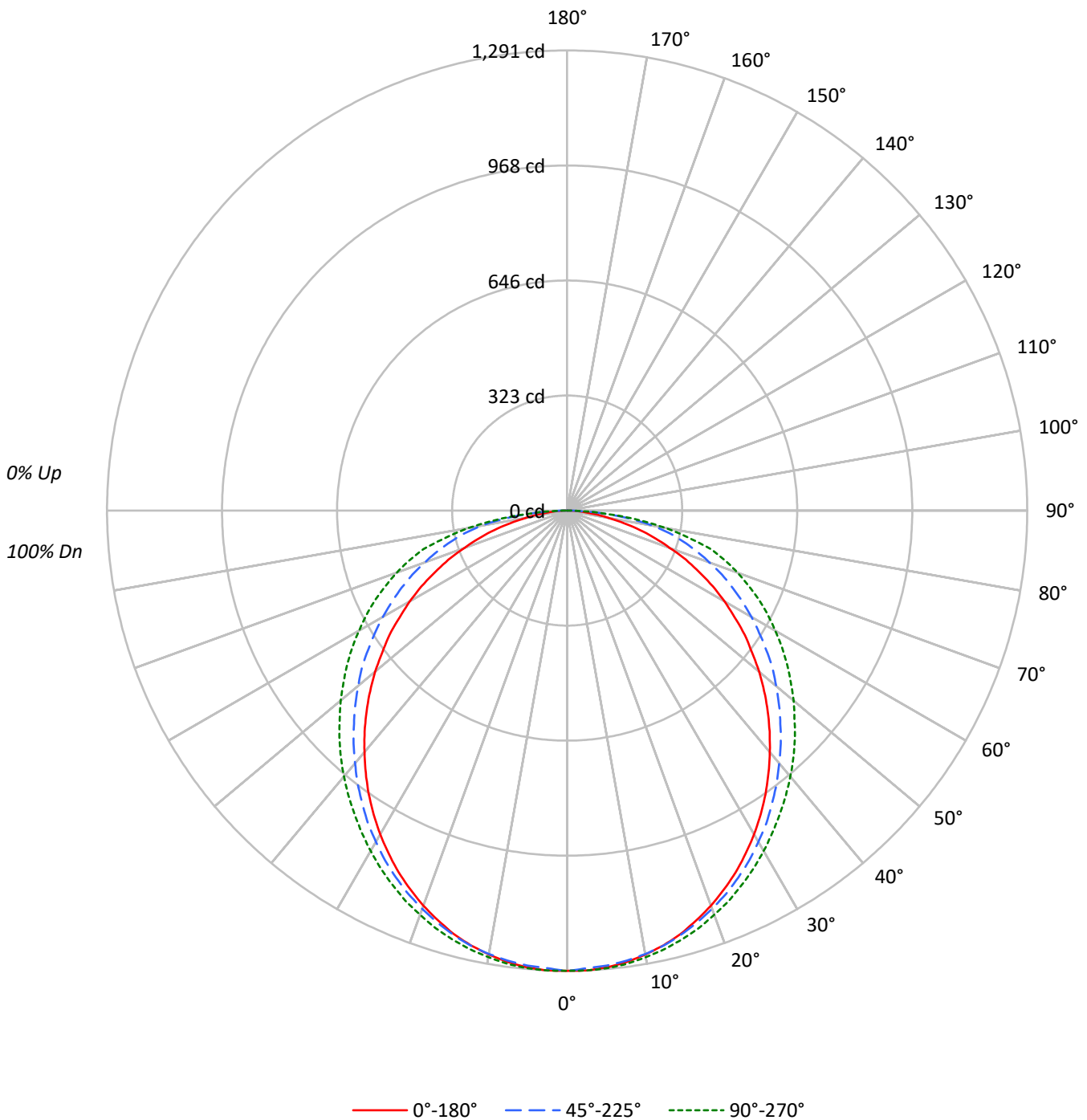
Input Watts (W): 28.644  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	1738	1738	1738
5°	1737	1730	1741
10°	1728	1726	1738
15°	1713	1717	1735
20°	1689	1702	1728
25°	1662	1687	1721
30°	1629	1667	1713
35°	1594	1647	1708
40°	1554	1626	1711
45°	1514	1610	1720
50°	1473	1602	1736
55°	1427	1599	1768
60°	1371	1606	1814
65°	1300	1631	1892
70°	1207	1672	2000
75°	1101	1755	2169
80°	905	1890	2169
85°	693	1744	1863



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.1	3.2
10°-20°	348.7	9.1
20°-30°	524.7	13.6
30°-40°	628.8	16.3
40°-50°	655.3	17.0
50°-60°	609.7	15.9
60°-70°	502.2	13.1
70°-80°	342.0	8.9
80°-90°	112.9	2.9
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°	995.6	25.9
0°-40°	1624.4	42.2
0°-60°	2889.4	75.1
0°-90°	3846.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3846.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1291	1291	1291	1291	1291	
5°	1286	1286	1281	1288	1289	122
15°	1230	1231	1232	1244	1245	346
25°	1119	1124	1136	1155	1159	515
35°	970	982	1003	1030	1040	607
45°	796	813	846	888	904	614
55°	608	629	682	736	754	542
65°	408	443	512	572	594	405
75°	212	259	338	398	417	223
85°	45	87	113	121	121	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1291.4	1291.4	1291.4	1291.4	1291.4
2.5°	1291.4	1291.4	1285.0	1291.4	1291.4
5°	1286.3	1286.3	1281.2	1287.6	1288.9
7.5°	1277.3	1278.6	1273.5	1281.2	1282.4
10°	1264.5	1265.8	1263.2	1270.9	1272.2
12.5°	1249.1	1250.3	1250.3	1259.3	1260.6
15°	1229.8	1231.1	1232.4	1243.9	1245.2
17.5°	1205.4	1209.3	1211.8	1226.0	1228.5
20°	1179.7	1183.6	1188.7	1204.1	1206.7
22.5°	1150.2	1155.4	1164.3	1181.0	1184.9
25°	1119.4	1124.5	1136.1	1155.4	1159.2
27.5°	1084.7	1092.5	1106.6	1127.1	1132.2
30°	1048.8	1056.5	1073.2	1095.0	1102.7
32.5°	1010.3	1020.6	1039.8	1064.2	1071.9
35°	970.5	982.0	1002.6	1029.5	1039.8
37.5°	928.1	941.0	965.4	994.9	1007.7
40°	884.5	899.9	925.6	960.2	974.3
42.5°	840.8	855.0	887.1	924.3	939.7
45°	795.9	812.6	846.0	888.3	903.7
47.5°	749.7	766.4	806.2	851.1	865.2
50°	703.5	720.2	765.1	812.6	829.3
52.5°	653.4	675.2	726.6	774.1	790.8
55°	608.5	629.0	681.7	735.6	753.5
57.5°	557.1	581.5	639.3	695.8	715.0
60°	509.6	535.3	596.9	654.7	674.0
62.5°	460.9	489.1	554.6	613.6	635.4
65°	408.2	442.9	512.2	572.5	594.4
67.5°	360.7	396.7	469.8	531.5	550.7
70°	306.8	350.5	424.9	486.5	508.4
72.5°	260.6	304.2	382.6	442.9	464.7
75°	211.8	259.3	337.6	398.0	417.2
77.5°	163.0	215.7	294.0	340.2	346.6
80°	116.8	172.0	243.9	270.9	279.9
82.5°	82.2	132.2	179.7	197.7	202.8
85°	44.9	87.3	113.0	120.7	120.7
87.5°	19.3	37.2	44.9	46.2	47.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)