

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: P276481

Luminaire Tested: **24CZ2-40HE-S-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276481  
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-L82765-W2A1-U-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3821.9 lumens  
Efficiency: N/A  
Efficacy: 136.1 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

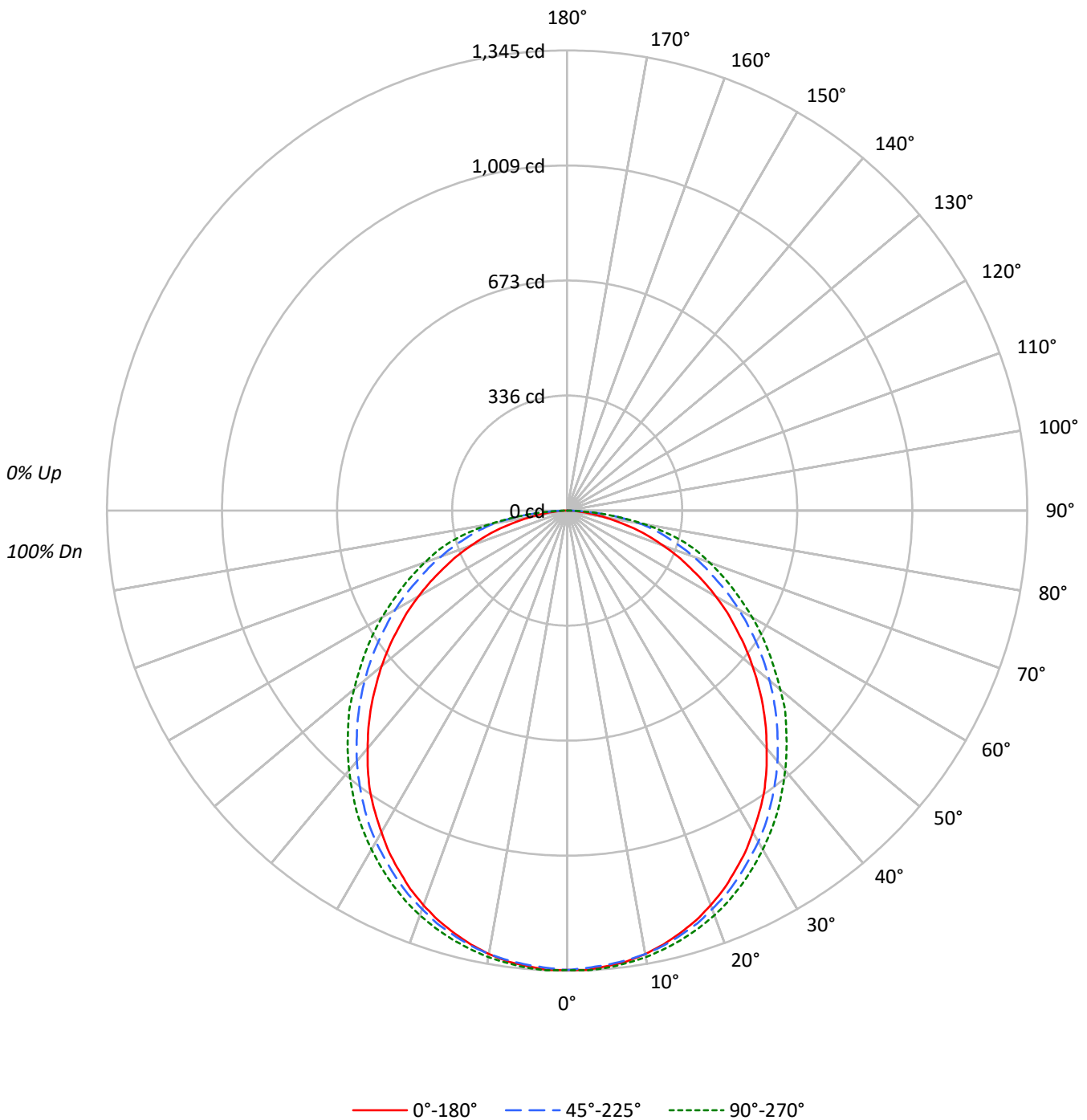
Input Watts (W): 28.086  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1807	1807	1807
5°	1805	1800	1812
10°	1798	1798	1811
15°	1781	1789	1808
20°	1757	1775	1803
25°	1725	1757	1791
30°	1686	1737	1777
35°	1649	1709	1763
40°	1593	1680	1742
45°	1541	1647	1723
50°	1482	1616	1703
55°	1415	1586	1686
60°	1349	1562	1682
65°	1264	1534	1693
70°	1170	1543	1738
75°	1048	1572	1837
80°	847	1665	1797
85°	638	1462	1425



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.1	3.3
10°-20°	363.2	9.5
20°-30°	546.0	14.3
30°-40°	650.3	17.0
40°-50°	665.6	17.4
50°-60°	599.2	15.7
60°-70°	470.6	12.3
70°-80°	305.4	8.0
80°-90°	94.5	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°	1036.3	27.1
0°-40°	1686.6	44.1
0°-60°	2951.5	77.2
0°-90°	3821.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3821.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1343	1343	1343	1343	1343	
5°	1337	1339	1333	1340	1341	127
15°	1278	1282	1284	1295	1298	360
25°	1162	1172	1184	1203	1207	535
35°	1004	1016	1040	1066	1073	626
45°	810	829	866	898	906	624
55°	603	630	676	711	719	541
65°	397	427	482	522	532	395
75°	202	240	302	344	353	213
85°	41	76	95	92	92	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1342.7	1342.7	1342.7	1342.7	1342.7
2.5°	1343.9	1343.9	1337.8	1343.9	1345.1
5°	1336.6	1339.0	1332.9	1340.2	1341.4
7.5°	1329.3	1329.3	1325.7	1332.9	1334.2
10°	1316.0	1317.2	1316.0	1324.5	1325.7
12.5°	1299.0	1301.4	1302.6	1311.1	1312.3
15°	1278.3	1282.0	1284.4	1295.3	1297.7
17.5°	1255.3	1258.9	1265.0	1277.1	1279.5
20°	1227.3	1232.2	1239.5	1255.3	1258.9
22.5°	1197.0	1201.8	1214.0	1228.5	1234.6
25°	1161.8	1171.5	1183.6	1203.1	1206.7
27.5°	1126.6	1135.1	1150.9	1171.5	1176.3
30°	1085.3	1098.7	1118.1	1138.7	1143.6
32.5°	1045.2	1058.6	1081.7	1103.5	1109.6
35°	1004.0	1016.1	1040.4	1065.9	1073.2
37.5°	956.6	972.4	999.1	1024.6	1031.9
40°	906.8	926.3	956.6	983.3	991.8
42.5°	859.5	880.1	910.5	939.6	949.3
45°	809.7	829.1	865.6	898.3	905.6
47.5°	758.7	780.6	819.4	852.2	864.4
50°	707.8	730.8	772.1	806.1	813.4
52.5°	656.8	681.0	724.7	761.2	764.8
55°	603.3	630.1	676.2	711.4	718.7
57.5°	554.8	577.9	627.6	664.0	672.5
60°	501.4	526.9	580.3	614.3	625.2
62.5°	450.4	477.1	532.9	566.9	576.6
65°	397.0	427.3	481.9	522.0	531.7
67.5°	350.8	380.0	438.2	477.1	486.8
70°	297.4	330.2	392.1	432.2	441.9
72.5°	251.3	285.3	347.2	386.0	400.6
75°	201.5	240.4	302.3	343.6	353.3
77.5°	153.0	197.9	261.0	292.6	292.6
80°	109.3	156.6	214.9	229.4	231.9
82.5°	71.6	117.8	159.0	157.8	157.8
85°	41.3	76.5	94.7	92.3	92.3
87.5°	15.8	31.6	34.0	34.0	32.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)