

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: P276199

Luminaire Tested: **24CZ2-40HE-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276199  
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-L92765-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3490.7 lumens  
Efficiency: N/A  
Efficacy: 121.1 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

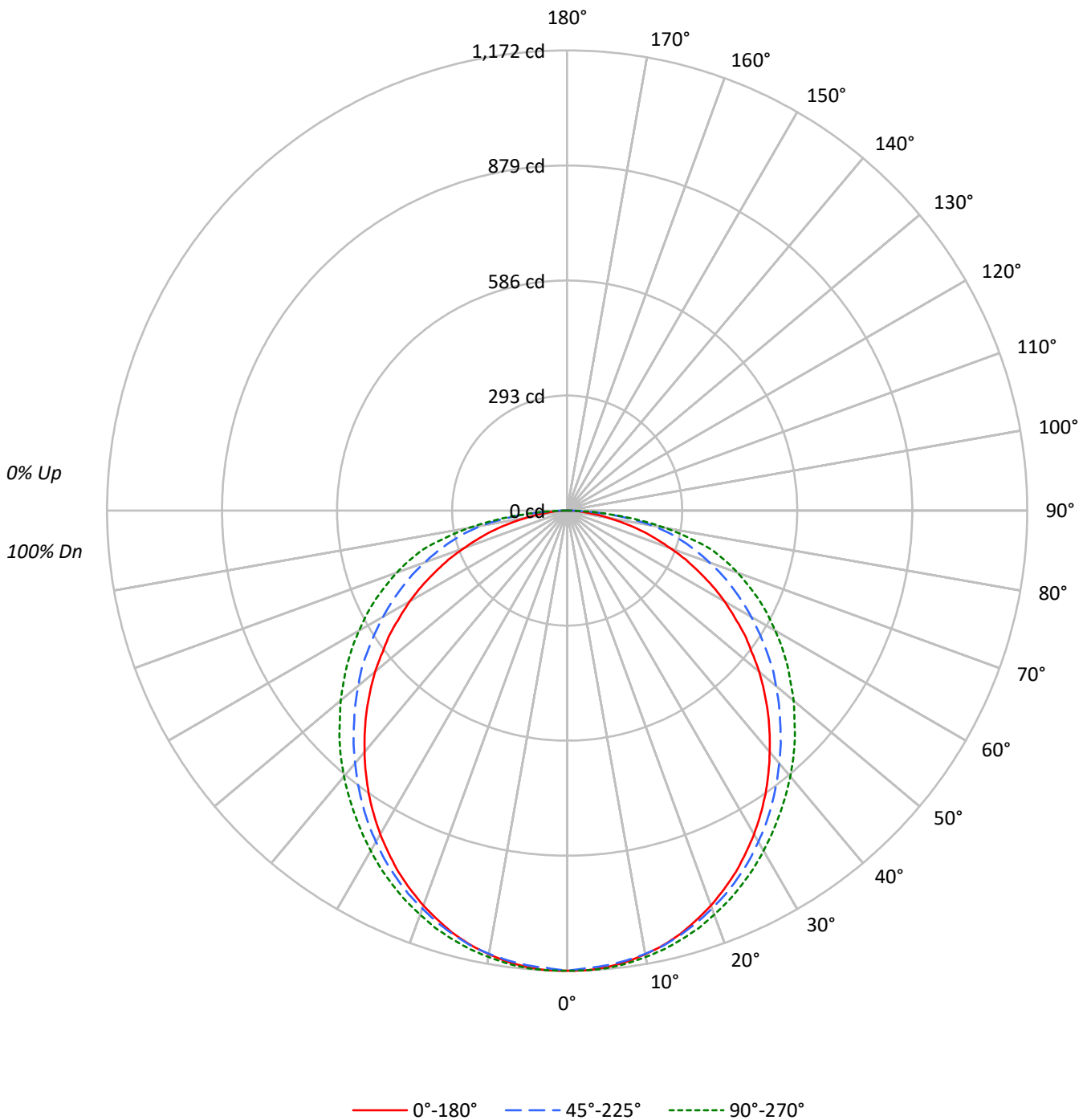
Input Watts (W): 28.83  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1577	1577	1577
5°	1577	1570	1580
10°	1568	1566	1577
15°	1555	1558	1574
20°	1533	1545	1568
25°	1508	1531	1562
30°	1479	1513	1555
35°	1447	1495	1550
40°	1410	1475	1553
45°	1374	1461	1561
50°	1336	1453	1575
55°	1295	1451	1604
60°	1245	1458	1646
65°	1180	1480	1717
70°	1095	1517	1815
75°	999	1593	1968
80°	821	1715	1968
85°	630	1582	1690



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.8	3.2
10°-20°	316.4	9.1
20°-30°	476.2	13.6
30°-40°	570.7	16.3
40°-50°	594.7	17.0
50°-60°	553.3	15.9
60°-70°	455.7	13.1
70°-80°	310.4	8.9
80°-90°	102.5	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°	903.5	25.9
0°-40°	1474.2	42.2
0°-60°	2622.2	75.1
0°-90°	3490.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3490.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1172	1172	1172	1172	1172	
5°	1167	1167	1163	1168	1170	111
15°	1116	1117	1118	1129	1130	314
25°	1016	1021	1031	1048	1052	468
35°	881	891	910	934	944	551
45°	722	738	768	806	820	557
55°	552	571	619	668	684	492
65°	370	402	465	520	539	368
75°	192	235	306	361	379	203
85°	41	79	102	110	110	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1172.0	1172.0	1172.0	1172.0	1172.0
2.5°	1172.0	1172.0	1166.2	1172.0	1172.0
5°	1167.3	1167.3	1162.7	1168.5	1169.7
7.5°	1159.2	1160.4	1155.7	1162.7	1163.8
10°	1147.5	1148.7	1146.4	1153.4	1154.5
12.5°	1133.6	1134.7	1134.7	1142.9	1144.0
15°	1116.1	1117.2	1118.4	1128.9	1130.1
17.5°	1093.9	1097.4	1099.8	1112.6	1114.9
20°	1070.6	1074.1	1078.8	1092.8	1095.1
22.5°	1043.9	1048.5	1056.7	1071.8	1075.3
25°	1015.9	1020.6	1031.0	1048.5	1052.0
27.5°	984.4	991.4	1004.2	1022.9	1027.5
30°	951.8	958.8	974.0	993.8	1000.7
32.5°	916.9	926.2	943.7	965.8	972.8
35°	880.8	891.2	909.9	934.3	943.7
37.5°	842.3	854.0	876.1	902.9	914.5
40°	802.7	816.7	840.0	871.4	884.2
42.5°	763.1	775.9	805.0	838.8	852.8
45°	722.3	737.5	767.7	806.2	820.2
47.5°	680.4	695.5	731.6	772.4	785.2
50°	638.4	653.6	694.3	737.5	752.6
52.5°	593.0	612.8	659.4	702.5	717.6
55°	552.2	570.9	618.6	667.6	683.9
57.5°	505.6	527.8	580.2	631.4	648.9
60°	462.5	485.8	541.7	594.2	611.6
62.5°	418.2	443.9	503.3	556.9	576.7
65°	370.5	401.9	464.8	519.6	539.4
67.5°	327.4	360.0	426.4	482.3	499.8
70°	278.4	318.0	385.6	441.5	461.3
72.5°	236.5	276.1	347.2	401.9	421.7
75°	192.2	235.3	306.4	361.2	378.6
77.5°	148.0	195.7	266.8	308.7	314.6
80°	106.0	156.1	221.4	245.8	254.0
82.5°	74.6	120.0	163.1	179.4	184.1
85°	40.8	79.2	102.5	109.5	109.5
87.5°	17.5	33.8	40.8	41.9	43.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)