

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: P276207

Luminaire Tested: **24CZ2-45HE-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276207  
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: 24CZ2-45HE-UNV-L92765-W2A1-U-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3747.1 lumens  
Efficiency: N/A  
Efficacy: 117.8 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

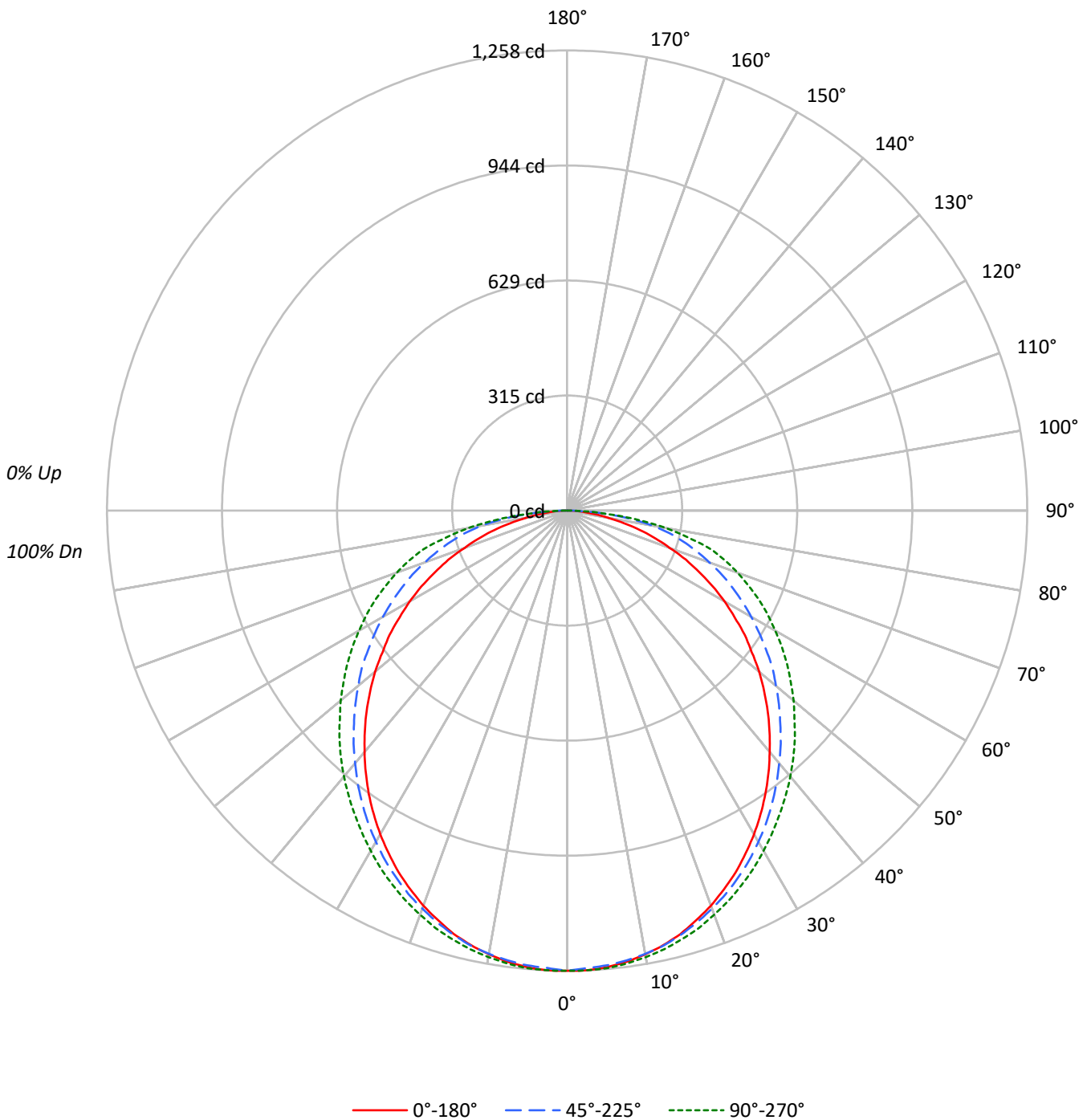
Input Watts (W): 31.806  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1693	1693	1693
5°	1692	1686	1696
10°	1683	1681	1693
15°	1669	1672	1690
20°	1646	1658	1683
25°	1619	1643	1677
30°	1587	1624	1669
35°	1553	1604	1664
40°	1513	1584	1667
45°	1475	1568	1675
50°	1434	1560	1691
55°	1391	1558	1722
60°	1336	1565	1767
65°	1266	1589	1843
70°	1176	1628	1948
75°	1072	1710	2113
80°	882	1841	2112
85°	676	1700	1815



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.0	3.2
10°-20°	339.7	9.1
20°-30°	511.2	13.6
30°-40°	612.6	16.3
40°-50°	638.4	17.0
50°-60°	593.9	15.9
60°-70°	489.2	13.1
70°-80°	333.2	8.9
80°-90°	110.0	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°	969.8	25.9
0°-40°	1582.4	42.2
0°-60°	2814.8	75.1
0°-90°	3747.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3747.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1258	1258	1258	1258	1258	
5°	1253	1253	1248	1254	1256	119
15°	1198	1199	1201	1212	1213	338
25°	1090	1096	1107	1126	1129	502
35°	945	957	977	1003	1013	591
45°	775	792	824	865	880	598
55°	593	613	664	717	734	528
65°	398	431	499	558	579	395
75°	206	253	329	388	406	218
85°	44	85	110	118	118	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1258.1	1258.1	1258.1	1258.1	1258.1
2.5°	1258.1	1258.1	1251.8	1258.1	1258.1
5°	1253.1	1253.1	1248.1	1254.3	1255.6
7.5°	1244.3	1245.6	1240.6	1248.1	1249.3
10°	1231.8	1233.1	1230.6	1238.1	1239.3
12.5°	1216.8	1218.1	1218.1	1226.8	1228.1
15°	1198.1	1199.3	1200.6	1211.8	1213.1
17.5°	1174.3	1178.0	1180.5	1194.3	1196.8
20°	1149.3	1153.0	1158.0	1173.0	1175.5
22.5°	1120.5	1125.5	1134.3	1150.5	1154.3
25°	1090.5	1095.5	1106.8	1125.5	1129.3
27.5°	1056.7	1064.2	1078.0	1098.0	1103.0
30°	1021.7	1029.2	1045.5	1066.7	1074.2
32.5°	984.2	994.2	1013.0	1036.7	1044.2
35°	945.4	956.7	976.7	1003.0	1013.0
37.5°	904.2	916.7	940.4	969.2	981.7
40°	861.6	876.7	901.7	935.4	949.2
42.5°	819.1	832.9	864.1	900.4	915.4
45°	775.4	791.6	824.1	865.4	880.4
47.5°	730.3	746.6	785.4	829.1	842.9
50°	685.3	701.6	745.3	791.6	807.9
52.5°	636.5	657.8	707.8	754.1	770.4
55°	592.8	612.8	664.1	716.6	734.1
57.5°	542.7	566.5	622.8	677.8	696.6
60°	496.5	521.5	581.5	637.8	656.6
62.5°	449.0	476.5	540.2	597.8	619.0
65°	397.7	431.4	499.0	557.8	579.0
67.5°	351.4	386.4	457.7	517.7	536.5
70°	298.9	341.4	413.9	474.0	495.2
72.5°	253.9	296.4	372.7	431.4	452.7
75°	206.3	252.6	328.9	387.7	406.4
77.5°	158.8	210.1	286.4	331.4	337.7
80°	113.8	167.6	237.6	263.9	272.6
82.5°	80.0	128.8	175.1	192.6	197.6
85°	43.8	85.0	110.1	117.6	117.6
87.5°	18.8	36.3	43.8	45.0	46.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)