

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: P276033

Luminaire Tested: **24CZ2-45-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276033  
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: 24CZ2-45-UNV-L93050-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3644.2 lumens  
Efficiency: N/A  
Efficacy: 102.3 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

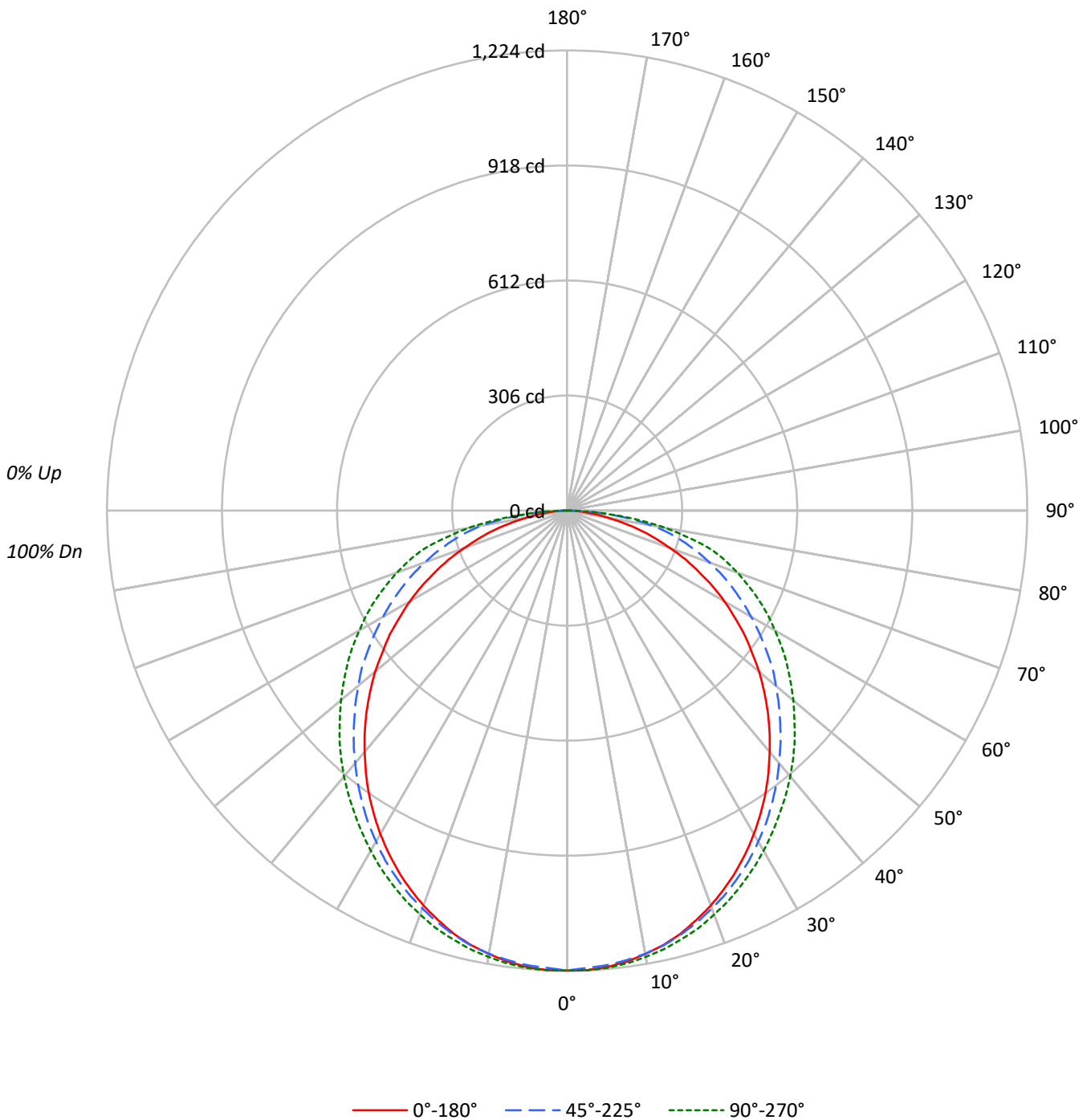
Input Watts (W): 35.632392  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1646	1646	1646
5°	1646	1639	1649
10°	1637	1635	1647
15°	1623	1626	1643
20°	1600	1613	1637
25°	1574	1598	1631
30°	1544	1580	1623
35°	1510	1560	1618
40°	1472	1540	1621
45°	1435	1525	1629
50°	1395	1517	1645
55°	1352	1515	1675
60°	1299	1522	1718
65°	1231	1545	1793
70°	1144	1584	1895
75°	1043	1663	2055
80°	858	1791	2054
85°	658	1652	1765



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.7	3.2
10°-20°	330.4	9.1
20°-30°	497.1	13.6
30°-40°	595.8	16.3
40°-50°	620.9	17.0
50°-60°	577.6	15.9
60°-70°	475.7	13.1
70°-80°	324.0	8.9
80°-90°	107.0	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°	943.2	25.9
0°-40°	1539.0	42.2
0°-60°	2737.5	75.1
0°-90°	3644.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3644.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1224	1224	1224	1224	1224	
5°	1219	1219	1214	1220	1221	116
15°	1165	1166	1168	1178	1180	328
25°	1060	1065	1076	1095	1098	488
35°	920	930	950	975	985	575
45°	754	770	802	842	856	582
55°	576	596	646	697	714	514
65°	387	420	485	542	563	384
75°	201	246	320	377	395	212
85°	43	83	107	114	114	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1223.5	1223.5	1223.5	1223.5	1223.5
2.5°	1223.5	1223.5	1217.4	1223.5	1223.5
5°	1218.7	1218.7	1213.8	1219.9	1221.1
7.5°	1210.1	1211.4	1206.5	1213.8	1215.0
10°	1198.0	1199.2	1196.8	1204.1	1205.3
12.5°	1183.4	1184.6	1184.6	1193.1	1194.3
15°	1165.1	1166.4	1167.6	1178.5	1179.7
17.5°	1142.0	1145.7	1148.1	1161.5	1163.9
20°	1117.7	1121.4	1126.2	1140.8	1143.3
22.5°	1089.7	1094.6	1103.1	1118.9	1122.6
25°	1060.5	1065.4	1076.4	1094.6	1098.3
27.5°	1027.7	1035.0	1048.4	1067.8	1072.7
30°	993.7	1001.0	1016.8	1037.4	1044.7
32.5°	957.2	966.9	985.1	1008.2	1015.5
35°	919.5	930.4	949.9	975.4	985.1
37.5°	879.3	891.5	914.6	942.6	954.7
40°	838.0	852.6	876.9	909.7	923.1
42.5°	796.6	810.0	840.4	875.7	890.3
45°	754.1	769.9	801.5	841.6	856.2
47.5°	710.3	726.1	763.8	806.4	819.7
50°	666.5	682.3	724.9	769.9	785.7
52.5°	619.1	639.7	688.4	733.4	749.2
55°	576.5	595.9	645.8	696.9	713.9
57.5°	527.8	550.9	605.7	659.2	677.4
60°	482.8	507.2	565.5	620.3	638.5
62.5°	436.6	463.4	525.4	581.4	602.0
65°	386.8	419.6	485.3	542.4	563.1
67.5°	341.8	375.8	445.1	503.5	521.8
70°	290.7	332.0	402.6	460.9	481.6
72.5°	246.9	288.2	362.4	419.6	440.3
75°	200.7	245.7	319.9	377.0	395.3
77.5°	154.5	204.3	278.5	322.3	328.4
80°	110.7	163.0	231.1	256.6	265.1
82.5°	77.8	125.3	170.3	187.3	192.2
85°	42.6	82.7	107.0	114.3	114.3
87.5°	18.2	35.3	42.6	43.8	45.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)