

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: P276173

Luminaire Tested: **24CZ2-50-UNV-L82765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276173  
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: 24CZ2-50-UNV-L82765-W2A1-U-5000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4871.9 lumens  
Efficiency: N/A  
Efficacy: 119.9 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

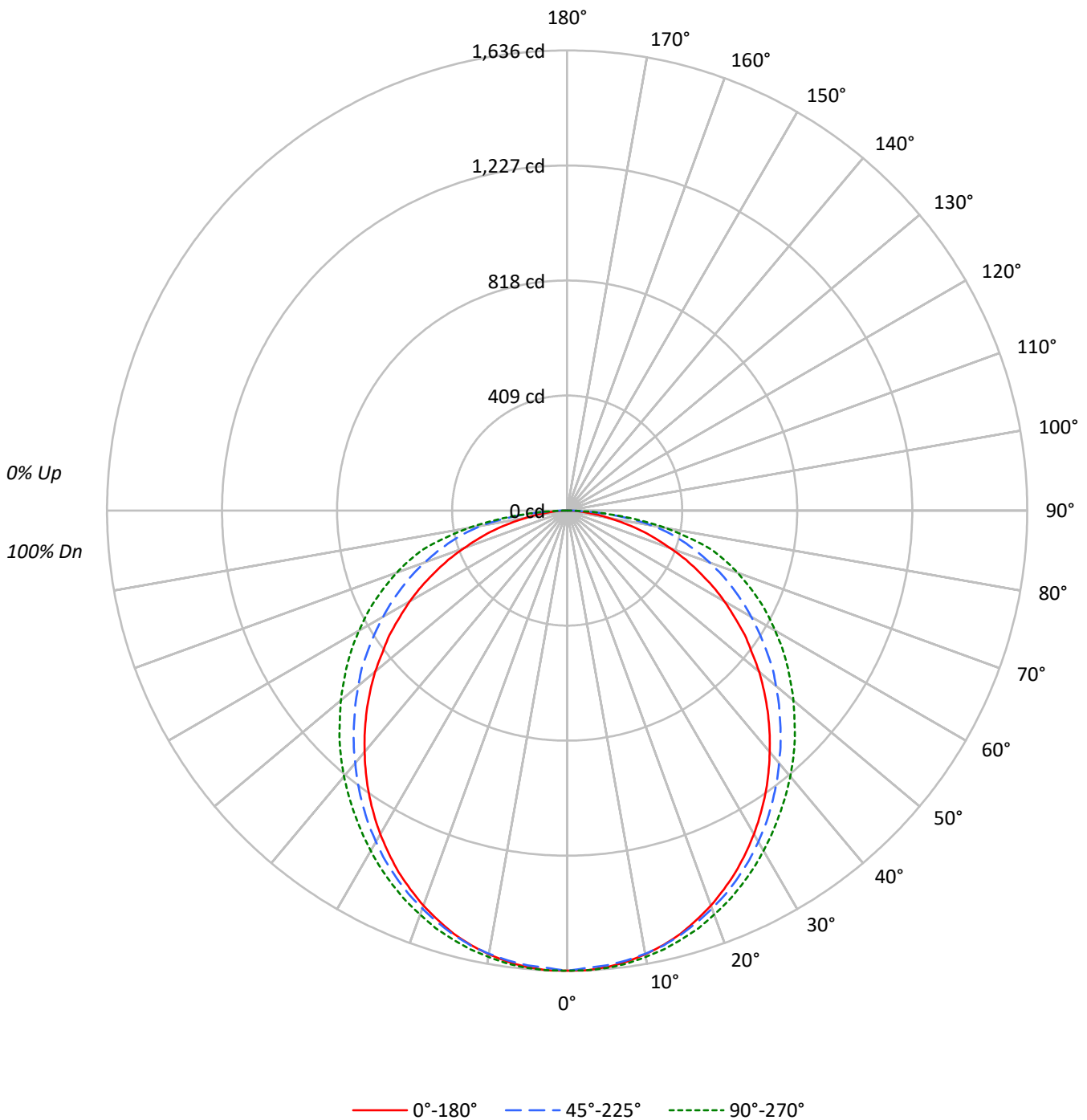
Input Watts (W): 40.641  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2201	2201	2201
5°	2200	2192	2205
10°	2188	2186	2201
15°	2170	2174	2197
20°	2140	2156	2188
25°	2105	2136	2180
30°	2064	2112	2170
35°	2019	2086	2163
40°	1968	2059	2168
45°	1918	2039	2178
50°	1865	2029	2199
55°	1808	2025	2239
60°	1737	2035	2297
65°	1646	2066	2397
70°	1529	2117	2533
75°	1395	2223	2747
80°	1147	2393	2747
85°	878	2209	2359



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	154.7	3.2
10°-20°	441.7	9.1
20°-30°	664.6	13.6
30°-40°	796.5	16.3
40°-50°	830.0	17.0
50°-60°	772.2	15.9
60°-70°	636.0	13.1
70°-80°	433.2	8.9
80°-90°	143.0	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°	1261.0	25.9
0°-40°	2057.5	42.2
0°-60°	3659.7	75.1
0°-90°	4871.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4871.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1636	1636	1636	1636	1636	
5°	1629	1629	1623	1631	1632	155
15°	1558	1559	1561	1576	1577	439
25°	1418	1424	1439	1463	1468	653
35°	1229	1244	1270	1304	1317	768
45°	1008	1029	1072	1125	1145	778
55°	771	797	863	932	954	687
65°	517	561	649	725	753	513
75°	268	328	428	504	528	283
85°	57	111	143	153	153	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1635.7	1635.7	1635.7	1635.7	1635.7
2.5°	1635.7	1635.7	1627.6	1635.7	1635.7
5°	1629.2	1629.2	1622.7	1630.8	1632.5
7.5°	1617.8	1619.5	1613.0	1622.7	1624.3
10°	1601.6	1603.2	1600.0	1609.7	1611.3
12.5°	1582.1	1583.7	1583.7	1595.1	1596.7
15°	1557.7	1559.3	1560.9	1575.6	1577.2
17.5°	1526.8	1531.7	1534.9	1552.8	1556.1
20°	1494.3	1499.1	1505.6	1525.2	1528.4
22.5°	1456.9	1463.4	1474.8	1495.9	1500.8
25°	1417.8	1424.3	1439.0	1463.4	1468.2
27.5°	1373.9	1383.7	1401.6	1427.6	1434.1
30°	1328.4	1338.2	1359.3	1387.0	1396.7
32.5°	1279.6	1292.6	1317.0	1347.9	1357.7
35°	1229.2	1243.9	1269.9	1304.0	1317.0
37.5°	1175.6	1191.8	1222.7	1260.1	1276.4
40°	1120.3	1139.8	1172.3	1216.2	1234.1
42.5°	1065.0	1082.9	1123.5	1170.7	1190.2
45°	1008.1	1029.2	1071.5	1125.2	1144.7
47.5°	949.6	970.7	1021.1	1078.0	1095.9
50°	891.0	912.2	969.1	1029.2	1050.4
52.5°	827.6	855.3	920.3	980.5	1001.6
55°	770.7	796.7	863.4	931.7	954.4
57.5°	705.7	736.6	809.7	881.3	905.7
60°	645.5	678.0	756.1	829.2	853.6
62.5°	583.7	619.5	702.4	777.2	804.9
65°	517.1	561.0	648.8	725.2	752.8
67.5°	456.9	502.4	595.1	673.2	697.5
70°	388.6	443.9	538.2	616.2	643.9
72.5°	330.1	385.4	484.5	561.0	588.6
75°	268.3	328.4	427.6	504.0	528.4
77.5°	206.5	273.2	372.3	430.9	439.0
80°	148.0	217.9	308.9	343.1	354.5
82.5°	104.1	167.5	227.6	250.4	256.9
85°	56.9	110.6	143.1	152.8	152.8
87.5°	24.4	47.2	56.9	58.5	60.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)