

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: P276386

Luminaire Tested: **24CZ2-50-S-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276386  
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: 24CZ2-50-S-UNV-L83050-W2A1-U-5000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5270.0 lumens  
Efficiency: N/A  
Efficacy: 126.5 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

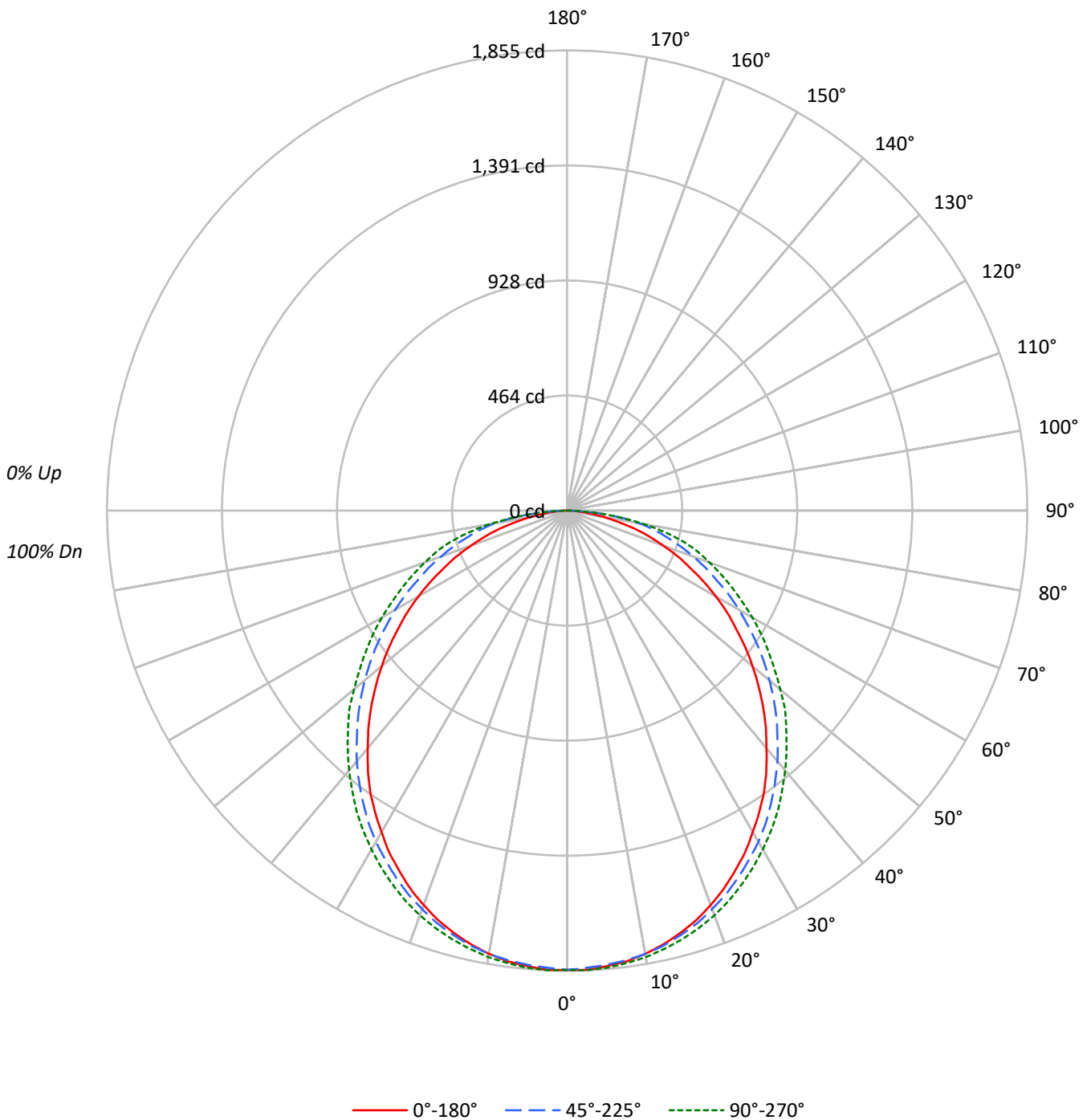
Input Watts (W): 41.656839  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2491	2491	2491
5°	2489	2482	2498
10°	2479	2479	2497
15°	2455	2467	2493
20°	2423	2447	2486
25°	2378	2423	2470
30°	2325	2395	2450
35°	2274	2356	2431
40°	2196	2317	2402
45°	2124	2271	2376
50°	2043	2228	2348
55°	1952	2187	2325
60°	1860	2153	2320
65°	1743	2116	2334
70°	1613	2127	2397
75°	1445	2167	2532
80°	1168	2296	2477
85°	878	2016	1964



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	175.3	3.3
10°-20°	500.8	9.5
20°-30°	752.8	14.3
30°-40°	896.8	17.0
40°-50°	917.8	17.4
50°-60°	826.3	15.7
60°-70°	648.9	12.3
70°-80°	421.1	8.0
80°-90°	130.3	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°	1428.9	27.1
0°-40°	2325.7	44.1
0°-60°	4069.7	77.2
0°-90°	5270.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5270.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1851	1851	1851	1851	1851	
5°	1843	1846	1838	1848	1850	175
15°	1763	1768	1771	1786	1789	497
25°	1602	1615	1632	1659	1664	738
35°	1384	1401	1435	1470	1480	864
45°	1116	1143	1194	1239	1249	861
55°	832	869	932	981	991	746
65°	547	589	665	720	733	545
75°	278	331	417	474	487	294
85°	57	106	131	127	127	69
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1851.4	1851.4	1851.4	1851.4	1851.4
2.5°	1853.1	1853.1	1844.7	1853.1	1854.7
5°	1843.0	1846.4	1838.0	1848.0	1849.7
7.5°	1833.0	1833.0	1828.0	1838.0	1839.7
10°	1814.6	1816.2	1814.6	1826.3	1828.0
12.5°	1791.1	1794.5	1796.1	1807.9	1809.5
15°	1762.7	1767.7	1771.0	1786.1	1789.4
17.5°	1730.9	1735.9	1744.3	1761.0	1764.3
20°	1692.4	1699.1	1709.1	1730.9	1735.9
22.5°	1650.5	1657.2	1673.9	1694.0	1702.4
25°	1602.0	1615.4	1632.1	1658.9	1663.9
27.5°	1553.4	1565.1	1586.9	1615.4	1622.1
30°	1496.5	1514.9	1541.7	1570.2	1576.9
32.5°	1441.3	1459.7	1491.5	1521.6	1530.0
35°	1384.4	1401.1	1434.6	1469.7	1479.8
37.5°	1319.1	1340.8	1377.7	1412.8	1422.9
40°	1250.4	1277.2	1319.1	1355.9	1367.6
42.5°	1185.2	1213.6	1255.5	1295.6	1309.0
45°	1116.5	1143.3	1193.5	1238.7	1248.8
47.5°	1046.2	1076.3	1129.9	1175.1	1191.9
50°	975.9	1007.7	1064.6	1111.5	1121.5
52.5°	905.6	939.1	999.3	1049.6	1054.6
55°	832.0	868.8	932.4	980.9	991.0
57.5°	765.0	796.8	865.4	915.6	927.4
60°	691.3	726.5	800.1	847.0	862.1
62.5°	621.0	657.9	734.9	781.7	795.1
65°	547.4	589.2	664.6	719.8	733.2
67.5°	483.8	523.9	604.3	657.9	671.3
70°	410.1	455.3	540.7	595.9	609.3
72.5°	346.5	393.4	478.7	532.3	552.4
75°	277.9	331.4	416.8	473.7	487.1
77.5°	210.9	272.9	359.9	403.4	403.4
80°	150.7	215.9	296.3	316.4	319.7
82.5°	98.8	162.4	219.3	217.6	217.6
85°	56.9	105.5	130.6	127.2	127.2
87.5°	21.8	43.5	46.9	46.9	45.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)