

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: P261070

Luminaire Tested: **24CZ-LD5-50-S-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261070  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-50-S-UNV-L93050-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4788.2 lumens  
Efficiency: N/A  
Efficacy: 128.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

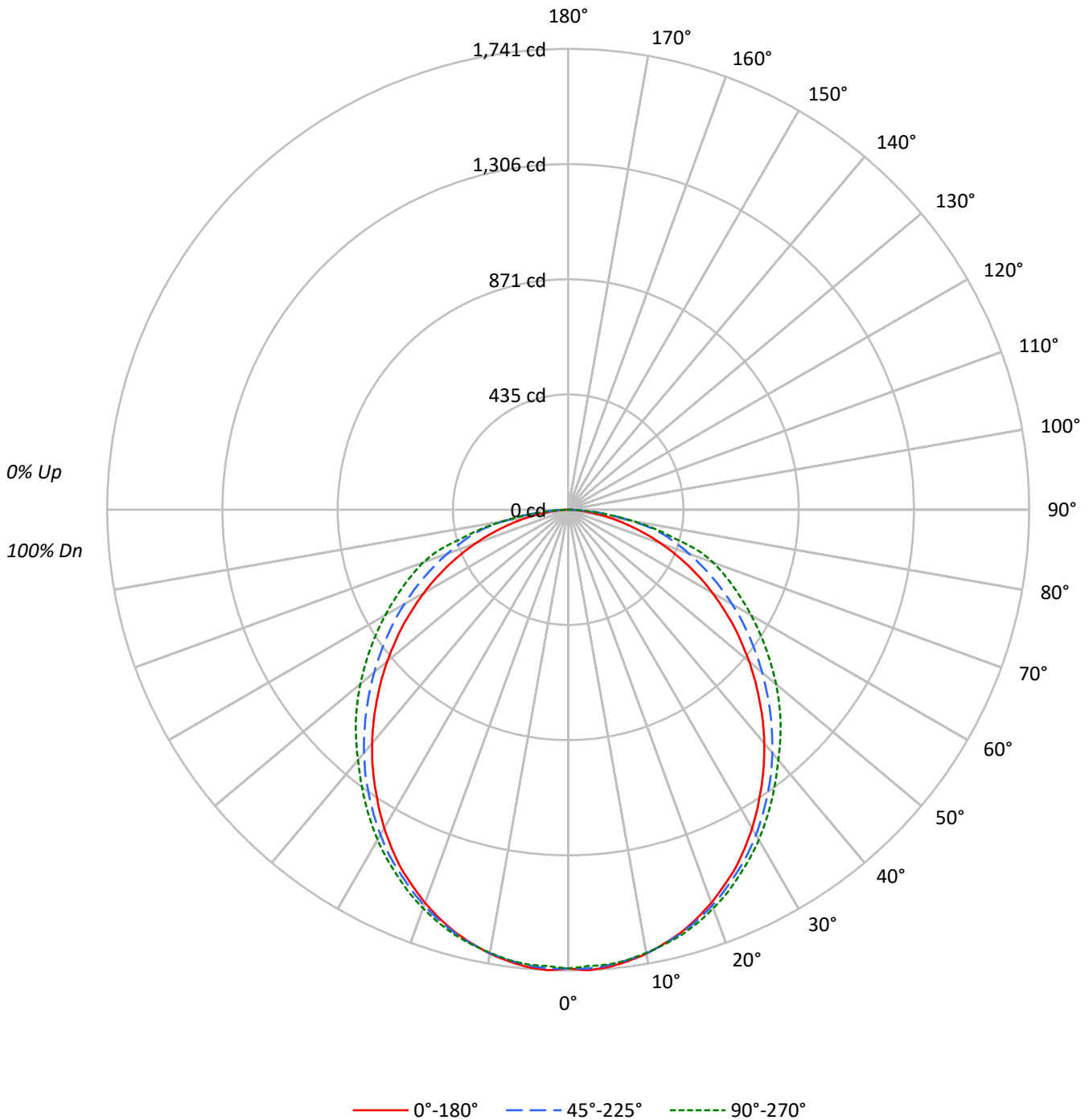
Input Watts (W): 37.211904  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2332	2332	2332
5°	2343	2335	2330
10°	2327	2325	2322
15°	2301	2306	2315
20°	2263	2279	2295
25°	2219	2242	2266
30°	2158	2203	2238
35°	2091	2156	2201
40°	2023	2107	2169
45°	1946	2052	2159
50°	1868	2001	2144
55°	1787	1958	2138
60°	1693	1925	2148
65°	1593	1902	2191
70°	1467	1912	2294
75°	1300	1980	2137
80°	1086	1877	1925
85°	812	1501	1377



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.9	3.4
10°-20°	466.1	9.7
20°-30°	694.6	14.5
30°-40°	817.7	17.1
40°-50°	830.9	17.4
50°-60°	747.1	15.6
60°-70°	590.2	12.3
70°-80°	374.4	7.8
80°-90°	103.3	2.2
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°	1324.6	27.7
0°-40°	2142.2	44.7
0°-60°	3720.2	77.7
0°-90°	4788.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4788.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1733	1733	1733	1733	1733	
5°	1735	1721	1729	1725	1725	165
15°	1652	1644	1655	1660	1662	465
25°	1494	1493	1510	1520	1526	687
35°	1273	1281	1313	1327	1340	796
45°	1023	1037	1079	1110	1134	789
55°	762	781	835	889	911	680
65°	500	526	598	663	688	496
75°	250	293	381	414	411	266
85°	53	91	97	89	89	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1733.4	1733.4	1733.4	1733.4	1733.4
2.5°	1741.4	1728.6	1735.0	1731.8	1725.4
5°	1735.0	1720.7	1728.6	1725.4	1725.4
7.5°	1720.7	1709.5	1715.9	1714.3	1715.9
10°	1703.1	1692.0	1701.5	1701.5	1699.9
12.5°	1679.2	1669.7	1680.8	1680.8	1682.4
15°	1652.2	1644.2	1655.3	1660.1	1661.7
17.5°	1618.7	1610.7	1625.1	1629.8	1634.6
20°	1580.5	1577.3	1591.6	1596.4	1602.8
22.5°	1537.4	1537.4	1551.8	1558.2	1567.7
25°	1494.4	1492.8	1510.4	1519.9	1526.3
27.5°	1443.4	1445.0	1467.3	1476.9	1484.9
30°	1389.3	1392.5	1418.0	1429.1	1440.3
32.5°	1331.9	1338.3	1367.0	1379.7	1390.9
35°	1273.0	1280.9	1312.8	1327.1	1339.9
37.5°	1214.0	1225.2	1258.6	1273.0	1287.3
40°	1151.9	1161.4	1199.7	1217.2	1234.7
42.5°	1088.2	1100.9	1139.1	1164.6	1185.3
45°	1022.8	1037.2	1078.6	1110.5	1134.4
47.5°	957.5	976.6	1016.5	1059.5	1080.2
50°	892.2	911.3	955.9	1003.7	1024.4
52.5°	825.3	844.4	895.4	944.8	967.1
55°	761.6	780.7	834.8	889.0	911.3
57.5°	694.6	715.3	775.9	831.7	854.0
60°	629.3	650.0	715.3	774.3	798.2
62.5°	565.6	587.9	656.4	718.5	742.4
65°	500.3	525.8	597.5	662.8	688.3
67.5°	436.5	465.2	540.1	608.6	635.7
70°	372.8	406.3	485.9	556.0	583.1
72.5°	310.7	347.3	431.8	501.9	516.2
75°	250.1	293.1	380.8	414.2	411.0
77.5°	192.8	240.6	323.4	329.8	339.4
80°	140.2	192.8	242.2	254.9	248.5
82.5°	92.4	145.0	173.7	167.3	165.7
85°	52.6	90.8	97.2	89.2	89.2
87.5°	22.3	36.6	31.9	23.9	22.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)