

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: P261060

Luminaire Tested: **24CZ-LD5-40-S-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261060  
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-LD5-40-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: 3880.3 lumens  
Efficiency: N/A  
Efficacy: 131.7 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

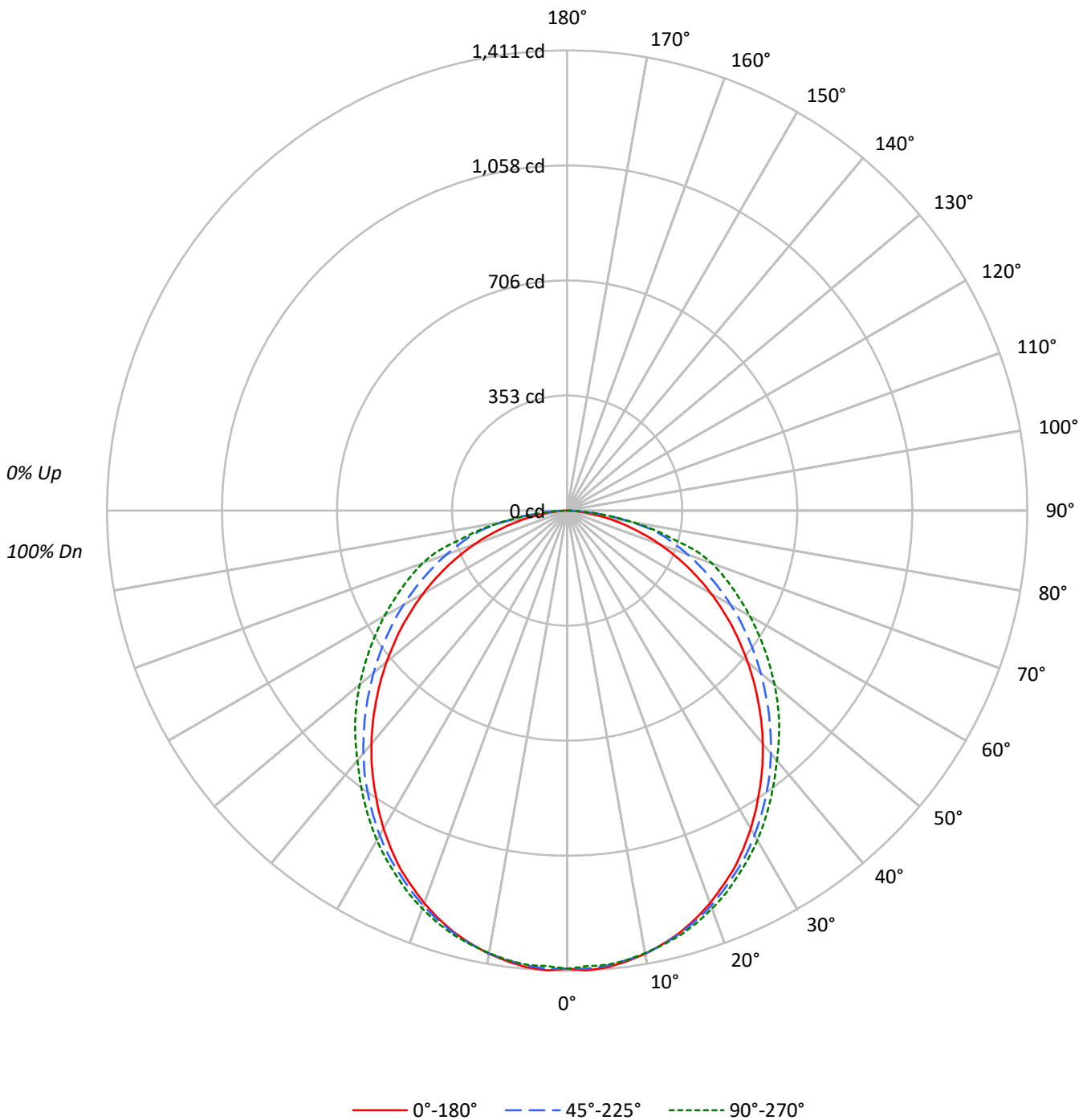
Input Watts (W): 29.459424  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50					50			
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38					38			
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27					27			
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

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

	0°	45°	90°
0°	1890	1890	1890
5°	1899	1892	1889
10°	1886	1884	1882
15°	1865	1869	1876
20°	1834	1847	1860
25°	1798	1817	1836
30°	1749	1785	1813
35°	1694	1747	1783
40°	1640	1708	1757
45°	1577	1663	1749
50°	1513	1622	1738
55°	1448	1587	1732
60°	1372	1560	1741
65°	1291	1542	1776
70°	1188	1549	1859
75°	1054	1604	1732
80°	880	1520	1561
85°	658	1216	1116



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.8	3.4
10°-20°	377.7	9.7
20°-30°	562.9	14.5
30°-40°	662.6	17.1
40°-50°	673.4	17.4
50°-60°	605.4	15.6
60°-70°	478.3	12.3
70°-80°	303.4	7.8
80°-90°	83.7	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°	1073.4	27.7
0°-40°	1736.0	44.7
0°-60°	3014.8	77.7
0°-90°	3880.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3880.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1405	1405	1405	1405	1405	
5°	1406	1394	1401	1398	1398	133
15°	1339	1332	1342	1345	1347	377
25°	1211	1210	1224	1232	1237	557
35°	1032	1038	1064	1076	1086	645
45°	829	840	874	900	919	640
55°	617	633	676	720	738	551
65°	405	426	484	537	558	402
75°	203	238	309	336	333	216
85°	43	74	79	72	72	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1404.7	1404.7	1404.7	1404.7	1404.7
2.5°	1411.2	1400.9	1406.0	1403.4	1398.3
5°	1406.0	1394.4	1400.9	1398.3	1398.3
7.5°	1394.4	1385.4	1390.5	1389.2	1390.5
10°	1380.2	1371.2	1378.9	1378.9	1377.6
12.5°	1360.8	1353.1	1362.1	1362.1	1363.4
15°	1338.9	1332.4	1341.5	1345.3	1346.6
17.5°	1311.8	1305.3	1316.9	1320.8	1324.7
20°	1280.8	1278.2	1289.8	1293.7	1298.9
22.5°	1245.9	1245.9	1257.5	1262.7	1270.5
25°	1211.1	1209.8	1224.0	1231.7	1236.9
27.5°	1169.7	1171.0	1189.1	1196.9	1203.3
30°	1125.8	1128.4	1149.1	1158.1	1167.2
32.5°	1079.4	1084.5	1107.8	1118.1	1127.1
35°	1031.6	1038.1	1063.9	1075.5	1085.8
37.5°	983.8	992.9	1020.0	1031.6	1043.2
40°	933.5	941.2	972.2	986.4	1000.6
42.5°	881.8	892.2	923.1	943.8	960.6
45°	828.9	840.5	874.1	899.9	919.3
47.5°	776.0	791.5	823.7	858.6	875.4
50°	723.0	738.5	774.7	813.4	830.2
52.5°	668.8	684.3	725.6	765.6	783.7
55°	617.2	632.6	676.5	720.4	738.5
57.5°	562.9	579.7	628.8	674.0	692.0
60°	510.0	526.8	579.7	627.5	646.8
62.5°	458.3	476.4	531.9	582.3	601.7
65°	405.4	426.1	484.2	537.1	557.8
67.5°	353.8	377.0	437.7	493.2	515.2
70°	302.1	329.2	393.8	450.6	472.5
72.5°	251.8	281.5	349.9	406.7	418.3
75°	202.7	237.6	308.6	335.7	333.1
77.5°	156.2	195.0	262.1	267.3	275.0
80°	113.6	156.2	196.2	206.6	201.4
82.5°	74.9	117.5	140.7	135.6	134.3
85°	42.6	73.6	78.8	72.3	72.3
87.5°	18.1	29.7	25.8	19.4	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)