

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: P261157

Luminaire Tested: **24CZ-LD5-45-S-UNV-L82765-W2A1-U-6500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261157  
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-LD5-45-S-UNV-L82765-W2A1-U-6500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4782.0 lumens  
Efficiency: N/A  
Efficacy: 145.7 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

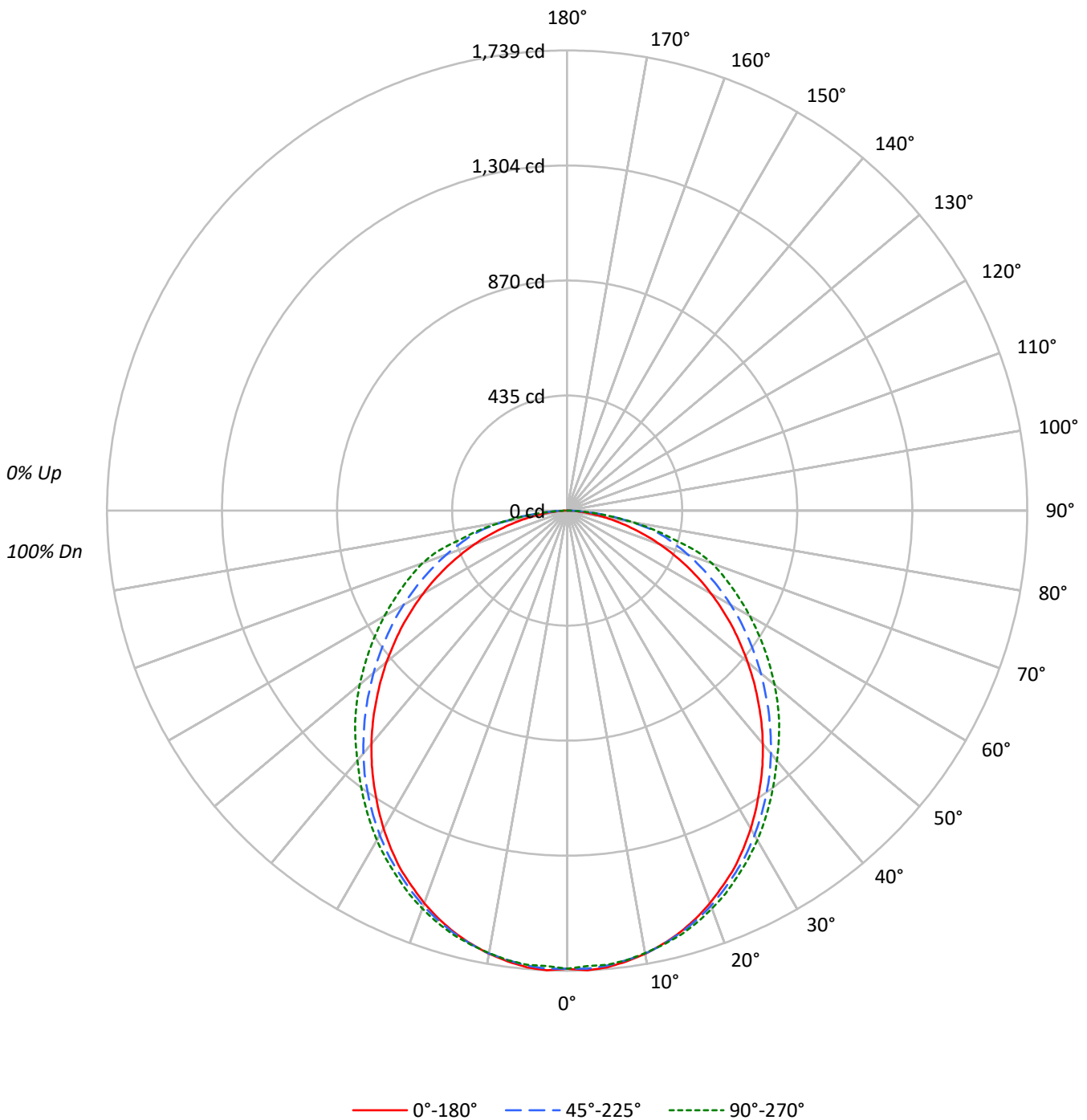
Input Watts (W): 32.829  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2329	2329	2329
5°	2340	2332	2327
10°	2324	2322	2320
15°	2298	2303	2312
20°	2260	2276	2292
25°	2216	2239	2263
30°	2156	2200	2235
35°	2088	2154	2198
40°	2021	2104	2166
45°	1944	2050	2156
50°	1865	1998	2142
55°	1784	1956	2135
60°	1691	1922	2145
65°	1591	1900	2188
70°	1465	1909	2291
75°	1299	1977	2134
80°	1085	1874	1923
85°	810	1499	1376



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.7	3.4
10°-20°	465.5	9.7
20°-30°	693.7	14.5
30°-40°	816.6	17.1
40°-50°	829.8	17.4
50°-60°	746.1	15.6
60°-70°	589.4	12.3
70°-80°	373.9	7.8
80°-90°	103.2	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°	1322.9	27.7
0°-40°	2139.5	44.7
0°-60°	3715.4	77.7
0°-90°	4782.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4782.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1731	1731	1731	1731	1731	
5°	1733	1718	1726	1723	1723	164
15°	1650	1642	1653	1658	1660	465
25°	1492	1491	1508	1518	1524	686
35°	1271	1279	1311	1325	1338	795
45°	1022	1036	1077	1109	1133	788
55°	761	780	834	888	910	679
65°	500	525	597	662	687	495
75°	250	293	380	414	410	266
85°	52	91	97	89	89	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1731.2	1731.2	1731.2	1731.2	1731.2
2.5°	1739.1	1726.4	1732.8	1729.6	1723.2
5°	1732.8	1718.4	1726.4	1723.2	1723.2
7.5°	1718.4	1707.3	1713.7	1712.1	1713.7
10°	1700.9	1689.8	1699.3	1699.3	1697.8
12.5°	1677.1	1667.5	1678.7	1678.7	1680.3
15°	1650.0	1642.1	1653.2	1658.0	1659.6
17.5°	1616.6	1608.7	1623.0	1627.7	1632.5
20°	1578.4	1575.2	1589.6	1594.3	1600.7
22.5°	1535.5	1535.5	1549.8	1556.1	1565.7
25°	1492.5	1490.9	1508.4	1518.0	1524.3
27.5°	1441.6	1443.2	1465.4	1475.0	1483.0
30°	1387.5	1390.7	1416.1	1427.3	1438.4
32.5°	1330.2	1336.6	1365.2	1377.9	1389.1
35°	1271.3	1279.3	1311.1	1325.4	1338.2
37.5°	1212.5	1223.6	1257.0	1271.3	1285.6
40°	1150.4	1159.9	1198.1	1215.6	1233.1
42.5°	1086.8	1099.5	1137.7	1163.1	1183.8
45°	1021.5	1035.8	1077.2	1109.0	1132.9
47.5°	956.3	975.4	1015.2	1058.1	1078.8
50°	891.0	910.1	954.7	1002.4	1023.1
52.5°	824.2	843.3	894.2	943.6	965.8
55°	760.6	779.7	833.8	887.9	910.1
57.5°	693.7	714.4	774.9	830.6	852.9
60°	628.5	649.2	714.4	773.3	797.2
62.5°	564.9	587.1	655.6	717.6	741.5
65°	499.6	525.1	596.7	661.9	687.4
67.5°	436.0	464.6	539.4	607.8	634.9
70°	372.3	405.7	485.3	555.3	582.4
72.5°	310.3	346.9	431.2	501.2	515.5
75°	249.8	292.8	380.3	413.7	410.5
77.5°	192.5	240.3	323.0	329.4	338.9
80°	140.0	192.5	241.9	254.6	248.2
82.5°	92.3	144.8	173.4	167.1	165.5
85°	52.5	90.7	97.1	89.1	89.1
87.5°	22.3	36.6	31.8	23.9	22.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)