

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: P260895

Luminaire Tested: **24CZ-LD5-60-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260895  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-60-UNV-L92765-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5465.0 lumens  
Efficiency: N/A  
Efficacy: 121.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

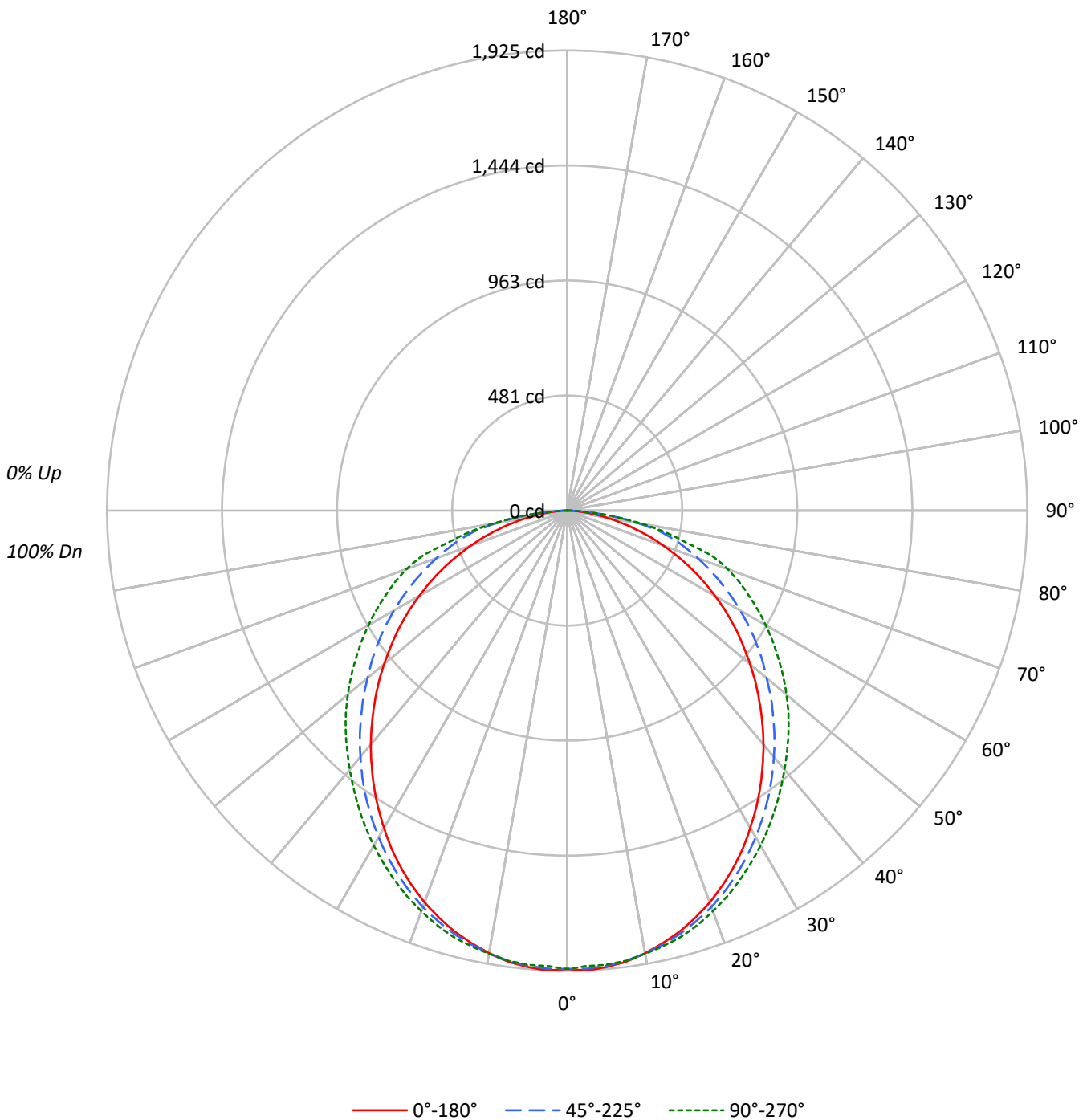
Input Watts (W): 45.105  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

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

	0°	45°	90°
0°	2581	2581	2581
5°	2588	2580	2575
10°	2569	2569	2572
15°	2539	2552	2570
20°	2497	2526	2553
25°	2445	2492	2533
30°	2381	2451	2515
35°	2314	2410	2496
40°	2245	2363	2485
45°	2168	2318	2492
50°	2092	2280	2507
55°	2015	2265	2533
60°	1924	2251	2583
65°	1823	2252	2669
70°	1686	2289	2812
75°	1508	2393	2675
80°	1261	2290	2450
85°	953	1761	1675



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.2	3.3
10°-20°	515.8	9.4
20°-30°	771.1	14.1
30°-40°	914.8	16.7
40°-50°	941.6	17.2
50°-60°	863.8	15.8
60°-70°	698.4	12.8
70°-80°	453.3	8.3
80°-90°	125.0	2.3
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°	1468.2	26.9
0°-40°	2383.0	43.6
0°-60°	4188.4	76.6
0°-90°	5465.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5465.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1918	1918	1918	1918	1918	
5°	1916	1903	1910	1909	1907	182
15°	1822	1815	1832	1839	1845	513
25°	1647	1648	1678	1693	1706	758
35°	1409	1420	1467	1499	1519	881
45°	1140	1158	1218	1276	1310	879
55°	859	885	966	1044	1080	767
65°	573	606	707	801	838	566
75°	290	344	460	515	515	308
85°	62	105	114	110	108	76
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1917.9	1917.9	1917.9	1917.9	1917.9
2.5°	1925.4	1910.4	1917.9	1916.1	1906.7
5°	1916.1	1903.0	1910.4	1908.6	1906.7
7.5°	1903.0	1889.9	1899.2	1897.3	1899.2
10°	1880.5	1869.3	1880.5	1882.4	1882.4
12.5°	1852.4	1843.1	1858.1	1861.8	1865.5
15°	1822.5	1815.0	1831.9	1839.3	1845.0
17.5°	1785.1	1779.5	1800.0	1809.4	1816.9
20°	1743.9	1742.0	1764.5	1773.9	1783.2
22.5°	1697.1	1697.1	1723.3	1734.6	1747.7
25°	1646.6	1648.5	1678.4	1693.4	1706.5
27.5°	1592.4	1594.2	1629.8	1648.5	1663.5
30°	1532.5	1540.0	1577.4	1601.7	1618.5
32.5°	1472.6	1482.0	1523.1	1551.2	1569.9
35°	1409.0	1420.2	1467.0	1498.8	1519.4
37.5°	1343.5	1356.6	1407.1	1442.7	1467.0
40°	1278.0	1293.0	1345.4	1386.5	1414.6
42.5°	1208.8	1225.6	1283.6	1332.3	1362.2
45°	1139.5	1158.2	1218.1	1276.1	1309.8
47.5°	1070.3	1092.8	1156.4	1220.0	1255.5
50°	999.2	1021.6	1089.0	1162.0	1197.5
52.5°	928.1	954.3	1029.1	1104.0	1139.5
55°	858.9	885.1	965.5	1044.1	1079.7
57.5°	787.8	814.0	901.9	984.2	1019.8
60°	714.8	744.7	836.4	920.6	959.9
62.5°	643.7	675.5	772.8	862.6	900.0
65°	572.6	606.3	707.3	800.9	838.3
67.5°	499.6	538.9	643.7	739.1	778.4
70°	428.5	471.5	581.9	677.4	714.8
72.5°	359.3	406.0	520.2	617.5	639.9
75°	290.0	344.3	460.3	514.6	514.6
77.5°	224.5	284.4	392.9	413.5	424.8
80°	162.8	228.3	295.6	320.0	316.2
82.5°	108.5	174.0	211.4	211.4	205.8
85°	61.7	104.8	114.1	110.4	108.5
87.5°	26.2	39.3	35.6	28.1	24.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)