

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: P276237

Luminaire Tested: **24CZ2-60HE-UNV-L92765-W2A1-U-5500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276237  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-60HE-UNV-L92765-W2A1-U-5500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5356.3 lumens  
Efficiency: N/A  
Efficacy: 117.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

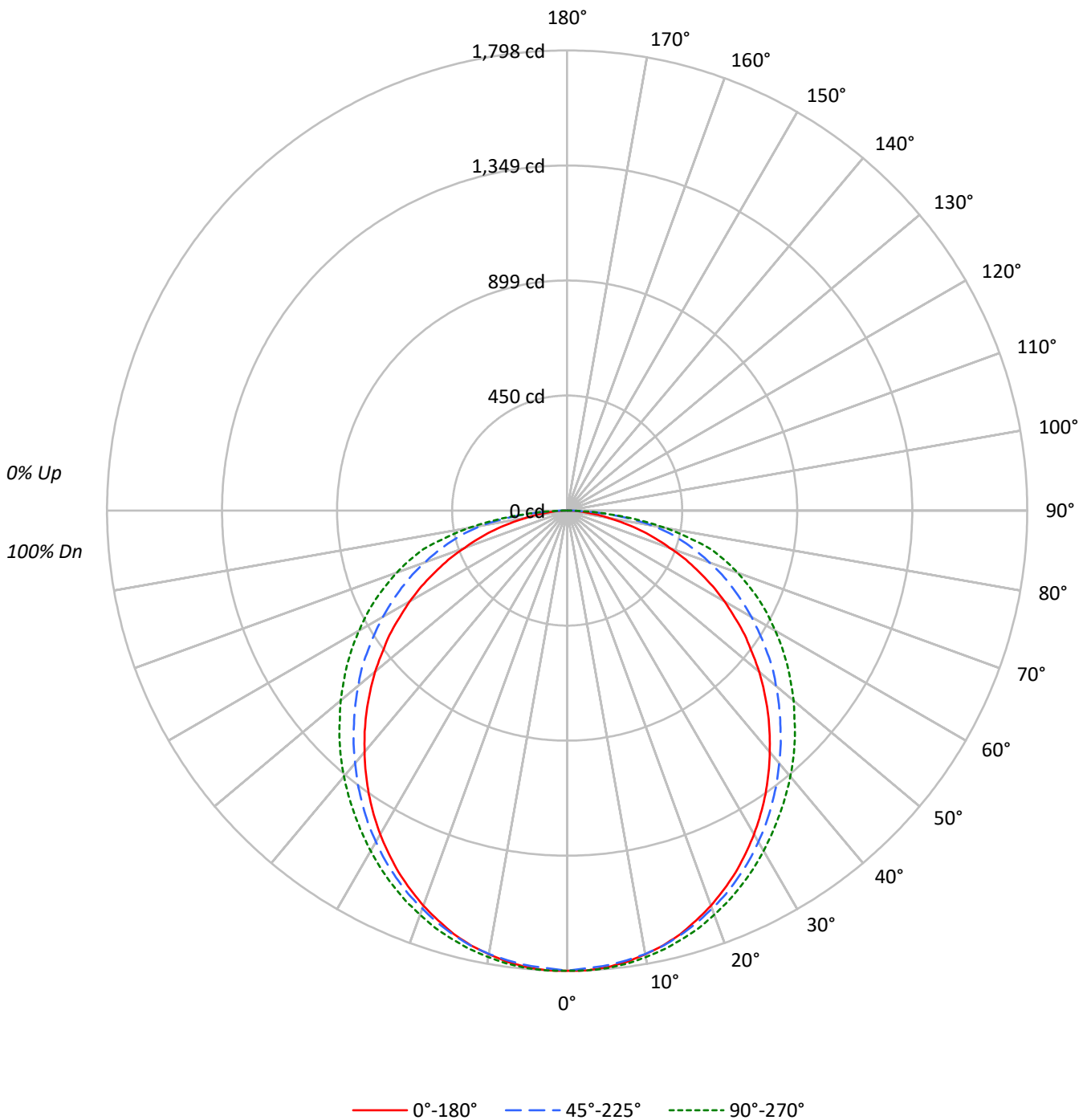
Input Watts (W): 45.477  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	2420	2420	2420
5°	2419	2410	2424
10°	2406	2403	2420
15°	2385	2390	2415
20°	2352	2370	2406
25°	2314	2349	2396
30°	2269	2322	2386
35°	2220	2293	2378
40°	2163	2264	2383
45°	2109	2242	2395
50°	2051	2230	2417
55°	1988	2227	2461
60°	1910	2237	2525
65°	1810	2271	2635
70°	1681	2328	2785
75°	1534	2444	3020
80°	1261	2631	3020
85°	966	2428	2594



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.1	3.2
10°-20°	485.6	9.1
20°-30°	730.7	13.6
30°-40°	875.7	16.3
40°-50°	912.5	17.0
50°-60°	849.0	15.9
60°-70°	699.3	13.1
70°-80°	476.2	8.9
80°-90°	157.2	2.9
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°	1386.3	25.9
0°-40°	2262.0	42.2
0°-60°	4023.5	75.1
0°-90°	5356.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5356.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1798	1798	1798	1798	1798	
5°	1791	1791	1784	1793	1795	170
15°	1712	1714	1716	1732	1734	482
25°	1559	1566	1582	1609	1614	718
35°	1351	1368	1396	1434	1448	845
45°	1108	1132	1178	1237	1258	855
55°	847	876	949	1024	1049	755
65°	568	617	713	797	828	564
75°	295	361	470	554	581	311
85°	63	122	157	168	168	78
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1798.3	1798.3	1798.3	1798.3	1798.3
2.5°	1798.3	1798.3	1789.4	1798.3	1798.3
5°	1791.2	1791.2	1784.0	1793.0	1794.8
7.5°	1778.7	1780.5	1773.3	1784.0	1785.8
10°	1760.8	1762.6	1759.0	1769.7	1771.5
12.5°	1739.4	1741.1	1741.1	1753.7	1755.4
15°	1712.5	1714.3	1716.1	1732.2	1734.0
17.5°	1678.6	1683.9	1687.5	1707.2	1710.7
20°	1642.8	1648.2	1655.3	1676.8	1680.4
22.5°	1601.7	1608.9	1621.4	1644.6	1650.0
25°	1558.8	1566.0	1582.0	1608.9	1614.2
27.5°	1510.5	1521.3	1540.9	1569.5	1576.7
30°	1460.5	1471.2	1494.4	1524.8	1535.6
32.5°	1406.9	1421.2	1448.0	1481.9	1492.7
35°	1351.4	1367.5	1396.1	1433.7	1448.0
37.5°	1292.4	1310.3	1344.3	1385.4	1403.3
40°	1231.7	1253.1	1288.9	1337.1	1356.8
42.5°	1170.9	1190.6	1235.2	1287.1	1308.5
45°	1108.3	1131.6	1178.0	1237.0	1258.5
47.5°	1044.0	1067.2	1122.6	1185.2	1204.9
50°	979.6	1002.9	1065.4	1131.6	1154.8
52.5°	909.9	940.3	1011.8	1077.9	1101.2
55°	847.3	875.9	949.2	1024.3	1049.3
57.5°	775.8	809.8	890.2	968.9	995.7
60°	709.7	745.4	831.2	911.7	938.5
62.5°	641.8	681.1	772.3	854.5	884.9
65°	568.5	616.7	713.3	797.3	827.7
67.5°	502.3	552.4	654.3	740.1	766.9
70°	427.2	488.0	591.7	677.5	707.9
72.5°	362.9	423.7	532.7	616.7	647.1
75°	295.0	361.1	470.1	554.2	581.0
77.5°	227.0	300.3	409.4	473.7	482.7
80°	162.7	239.5	339.6	377.2	389.7
82.5°	114.4	184.1	250.3	275.3	282.4
85°	62.6	121.6	157.3	168.0	168.0
87.5°	26.8	51.8	62.6	64.4	66.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)