

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: P276098

Luminaire Tested: **24CZ2-60HE-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276098  
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-L82765-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5572.9 lumens  
Efficiency: N/A  
Efficacy: 125.4 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

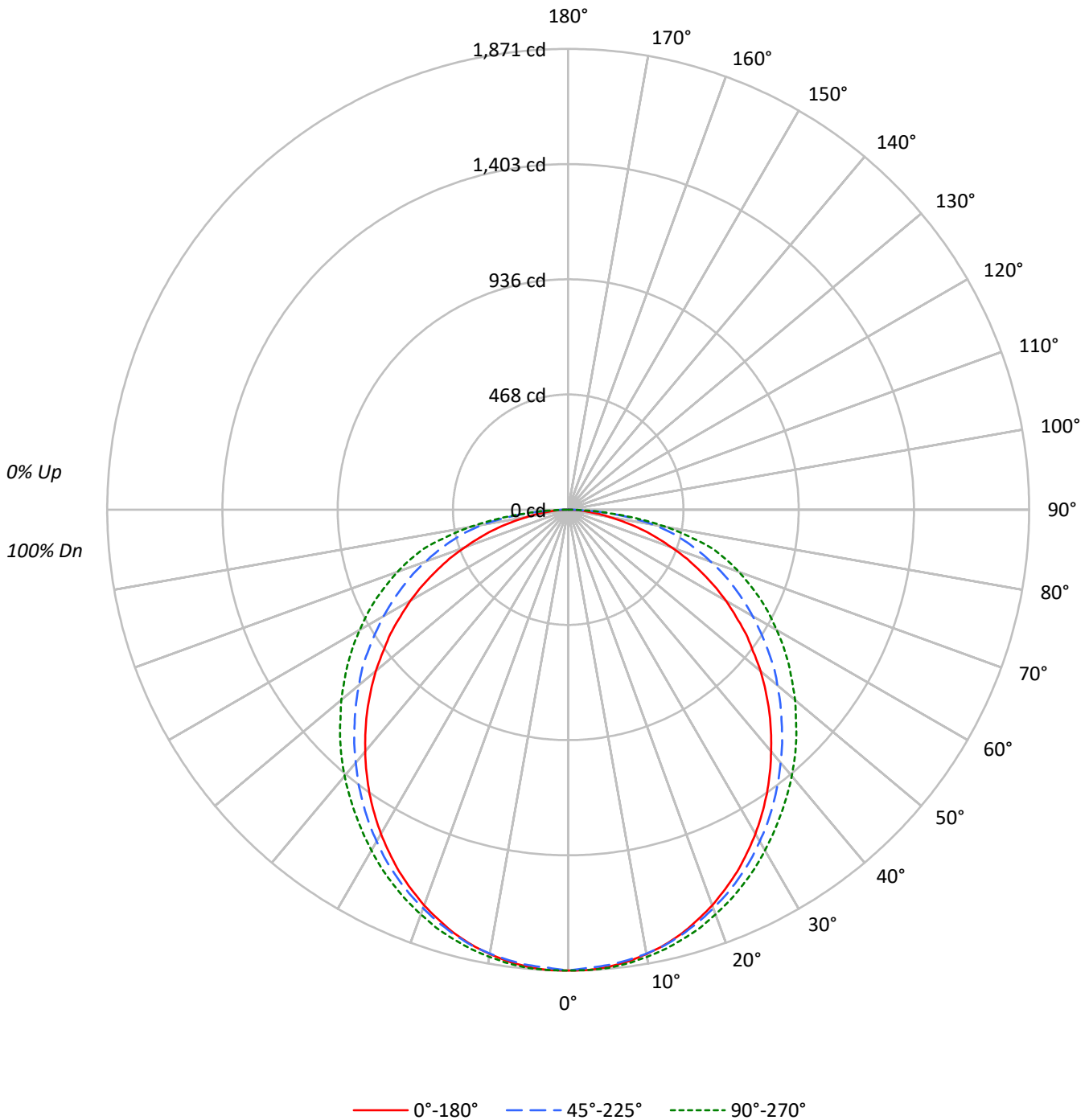
Input Watts (W): 44.454  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2518	2518	2518
5°	2517	2507	2522
10°	2503	2501	2518
15°	2482	2487	2513
20°	2447	2466	2503
25°	2408	2444	2493
30°	2361	2416	2482
35°	2310	2386	2474
40°	2251	2355	2480
45°	2194	2332	2492
50°	2133	2320	2515
55°	2068	2317	2561
60°	1987	2327	2628
65°	1883	2363	2741
70°	1749	2422	2897
75°	1595	2543	3143
80°	1312	2738	3142
85°	1005	2527	2699



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	177.0	3.2
10°-20°	505.2	9.1
20°-30°	760.2	13.6
30°-40°	911.1	16.3
40°-50°	949.4	17.0
50°-60°	883.3	15.9
60°-70°	727.5	13.1
70°-80°	495.5	8.9
80°-90°	163.6	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°	1442.4	25.9
0°-40°	2353.5	42.2
0°-60°	4186.3	75.1
0°-90°	5572.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5572.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1871	1871	1871	1871	1871	
5°	1864	1864	1856	1866	1867	177
15°	1782	1784	1786	1802	1804	502
25°	1622	1629	1646	1674	1680	747
35°	1406	1423	1453	1492	1506	879
45°	1153	1177	1226	1287	1309	889
55°	882	911	988	1066	1092	786
65°	592	642	742	830	861	587
75°	307	376	489	577	604	324
85°	65	126	164	175	175	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1871.1	1871.1	1871.1	1871.1	1871.1
2.5°	1871.1	1871.1	1861.8	1871.1	1871.1
5°	1863.6	1863.6	1856.2	1865.5	1867.4
7.5°	1850.6	1852.5	1845.0	1856.2	1858.1
10°	1832.0	1833.9	1830.2	1841.3	1843.2
12.5°	1809.7	1811.6	1811.6	1824.6	1826.4
15°	1781.8	1783.7	1785.5	1802.3	1804.1
17.5°	1746.5	1752.0	1755.8	1776.2	1779.9
20°	1709.3	1714.8	1722.3	1744.6	1748.3
22.5°	1666.5	1673.9	1686.9	1711.1	1716.7
25°	1621.8	1629.3	1646.0	1673.9	1679.5
27.5°	1571.6	1582.8	1603.2	1633.0	1640.4
30°	1519.6	1530.7	1554.9	1586.5	1597.7
32.5°	1463.8	1478.6	1506.5	1541.9	1553.0
35°	1406.1	1422.8	1452.6	1491.7	1506.5
37.5°	1344.7	1363.3	1398.7	1441.4	1460.0
40°	1281.5	1303.8	1341.0	1391.2	1411.7
42.5°	1218.2	1238.7	1285.2	1339.1	1361.5
45°	1153.1	1177.3	1225.7	1287.1	1309.4
47.5°	1086.2	1110.4	1168.0	1233.1	1253.6
50°	1019.2	1043.4	1108.5	1177.3	1201.5
52.5°	946.7	978.3	1052.7	1121.5	1145.7
55°	881.6	911.4	987.6	1065.7	1091.8
57.5°	807.2	842.5	926.2	1008.1	1036.0
60°	738.4	775.6	864.9	948.6	976.5
62.5°	667.7	708.6	803.5	889.0	920.7
65°	591.5	641.7	742.1	829.5	861.1
67.5°	522.6	574.7	680.7	770.0	797.9
70°	444.5	507.8	615.6	704.9	736.5
72.5°	377.6	440.8	554.3	641.7	673.3
75°	306.9	375.7	489.2	576.6	604.5
77.5°	236.2	312.5	425.9	492.9	502.2
80°	169.3	249.2	353.4	392.4	405.5
82.5°	119.0	191.6	260.4	286.4	293.9
85°	65.1	126.5	163.7	174.8	174.8
87.5°	27.9	53.9	65.1	67.0	68.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)