

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: P275923

Luminaire Tested: **24CZ2-60HE-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P275923  
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-L83050-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: 5706.0 lumens  
Efficiency: N/A  
Efficacy: 128.9 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

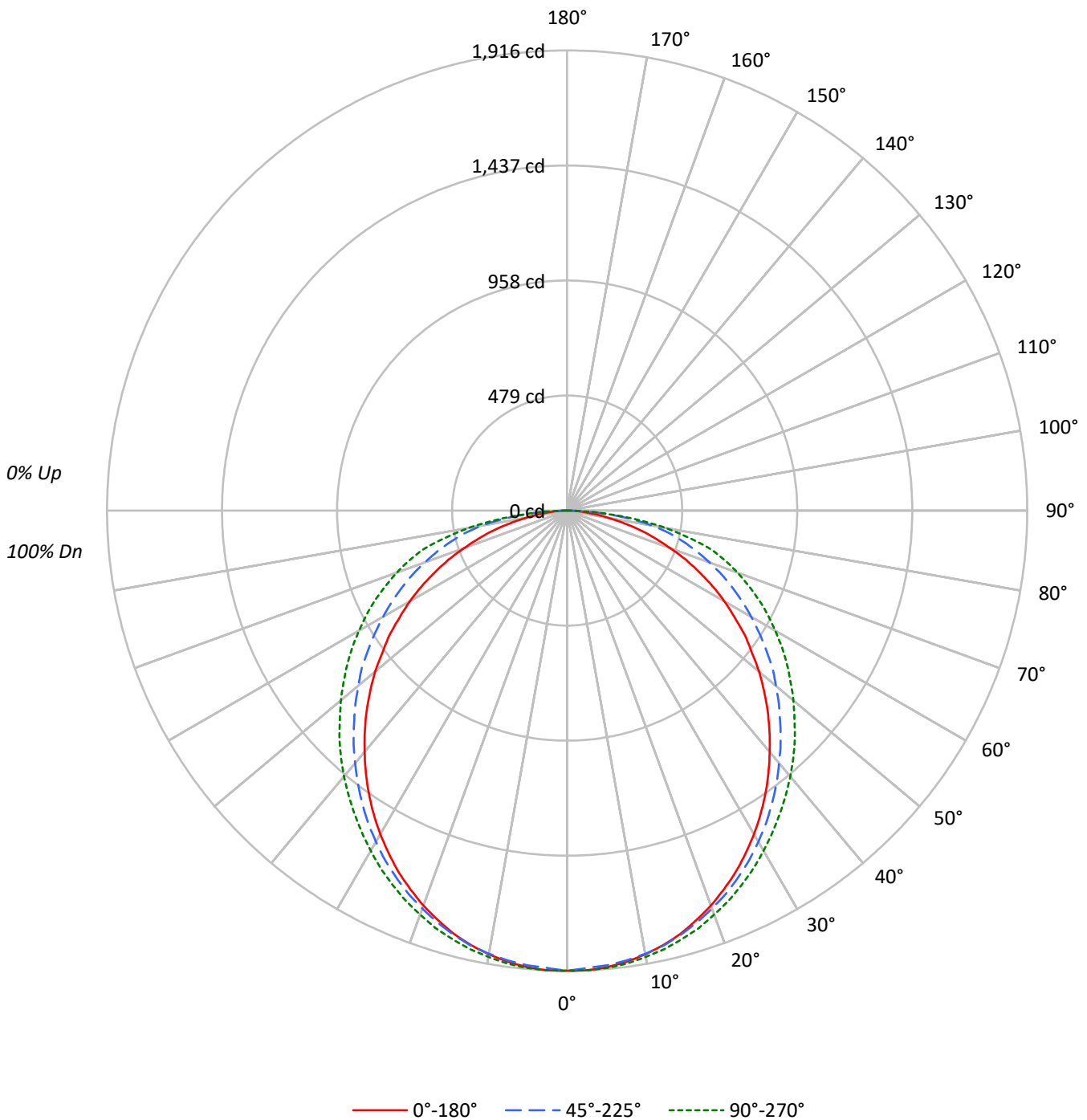
Input Watts (W): 44.268  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2578	2578	2578
5°	2577	2567	2582
10°	2563	2560	2578
15°	2541	2547	2573
20°	2506	2525	2563
25°	2465	2502	2553
30°	2417	2473	2541
35°	2365	2443	2534
40°	2305	2412	2539
45°	2247	2388	2551
50°	2184	2376	2575
55°	2118	2372	2622
60°	2034	2383	2690
65°	1928	2419	2807
70°	1790	2480	2967
75°	1633	2603	3217
80°	1343	2803	3216
85°	1030	2587	2763



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.2	3.2
10°-20°	517.3	9.1
20°-30°	778.4	13.6
30°-40°	932.8	16.3
40°-50°	972.1	17.0
50°-60°	904.4	15.9
60°-70°	744.9	13.1
70°-80°	507.3	8.9
80°-90°	167.5	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°	1476.9	25.9
0°-40°	2409.7	42.2
0°-60°	4286.3	75.1
0°-90°	5706.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5706.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1916	1916	1916	1916	1916	
5°	1908	1908	1900	1910	1912	181
15°	1824	1826	1828	1845	1847	514
25°	1661	1668	1685	1714	1720	764
35°	1440	1457	1487	1527	1542	900
45°	1181	1205	1255	1318	1341	911
55°	903	933	1011	1091	1118	805
65°	606	657	760	849	882	601
75°	314	385	501	590	619	331
85°	67	130	168	179	179	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1915.8	1915.8	1915.8	1915.8	1915.8
2.5°	1915.8	1915.8	1906.2	1915.8	1915.8
5°	1908.2	1908.2	1900.5	1910.1	1912.0
7.5°	1894.8	1896.7	1889.1	1900.5	1902.4
10°	1875.8	1877.7	1873.9	1885.3	1887.2
12.5°	1852.9	1854.8	1854.8	1868.2	1870.1
15°	1824.4	1826.3	1828.2	1845.3	1847.2
17.5°	1788.2	1793.9	1797.7	1818.6	1822.5
20°	1750.1	1755.8	1763.4	1786.3	1790.1
22.5°	1706.3	1713.9	1727.2	1752.0	1757.7
25°	1660.6	1668.2	1685.3	1713.9	1719.6
27.5°	1609.2	1620.6	1641.5	1672.0	1679.6
30°	1555.8	1567.3	1592.0	1624.4	1635.8
32.5°	1498.7	1514.0	1542.5	1578.7	1590.1
35°	1439.7	1456.8	1487.3	1527.3	1542.5
37.5°	1376.8	1395.9	1432.1	1475.9	1494.9
40°	1312.1	1334.9	1373.0	1424.4	1445.4
42.5°	1247.3	1268.3	1315.9	1371.1	1394.0
45°	1180.7	1205.4	1255.0	1317.8	1340.7
47.5°	1112.1	1136.9	1195.9	1262.6	1283.5
50°	1043.6	1068.3	1135.0	1205.4	1230.2
52.5°	969.3	1001.7	1077.9	1148.3	1173.1
55°	902.7	933.1	1011.2	1091.2	1117.8
57.5°	826.5	862.7	948.4	1032.2	1060.7
60°	756.0	794.1	885.5	971.2	999.8
62.5°	683.7	725.6	822.7	910.3	942.7
65°	605.6	657.0	759.8	849.3	881.7
67.5°	535.1	588.4	697.0	788.4	817.0
70°	455.1	519.9	630.3	721.7	754.1
72.5°	386.6	451.3	567.5	657.0	689.4
75°	314.2	384.7	500.8	590.3	618.9
77.5°	241.9	319.9	436.1	504.7	514.2
80°	173.3	255.2	361.8	401.8	415.1
82.5°	121.9	196.1	266.6	293.3	300.9
85°	66.7	129.5	167.6	179.0	179.0
87.5°	28.6	55.2	66.7	68.6	70.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)