

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: P276091

Luminaire Tested: **24CZ2-55HE-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276091  
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: 24CZ2-55HE-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5333.5 lumens  
Efficiency: N/A  
Efficacy: 130.6 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

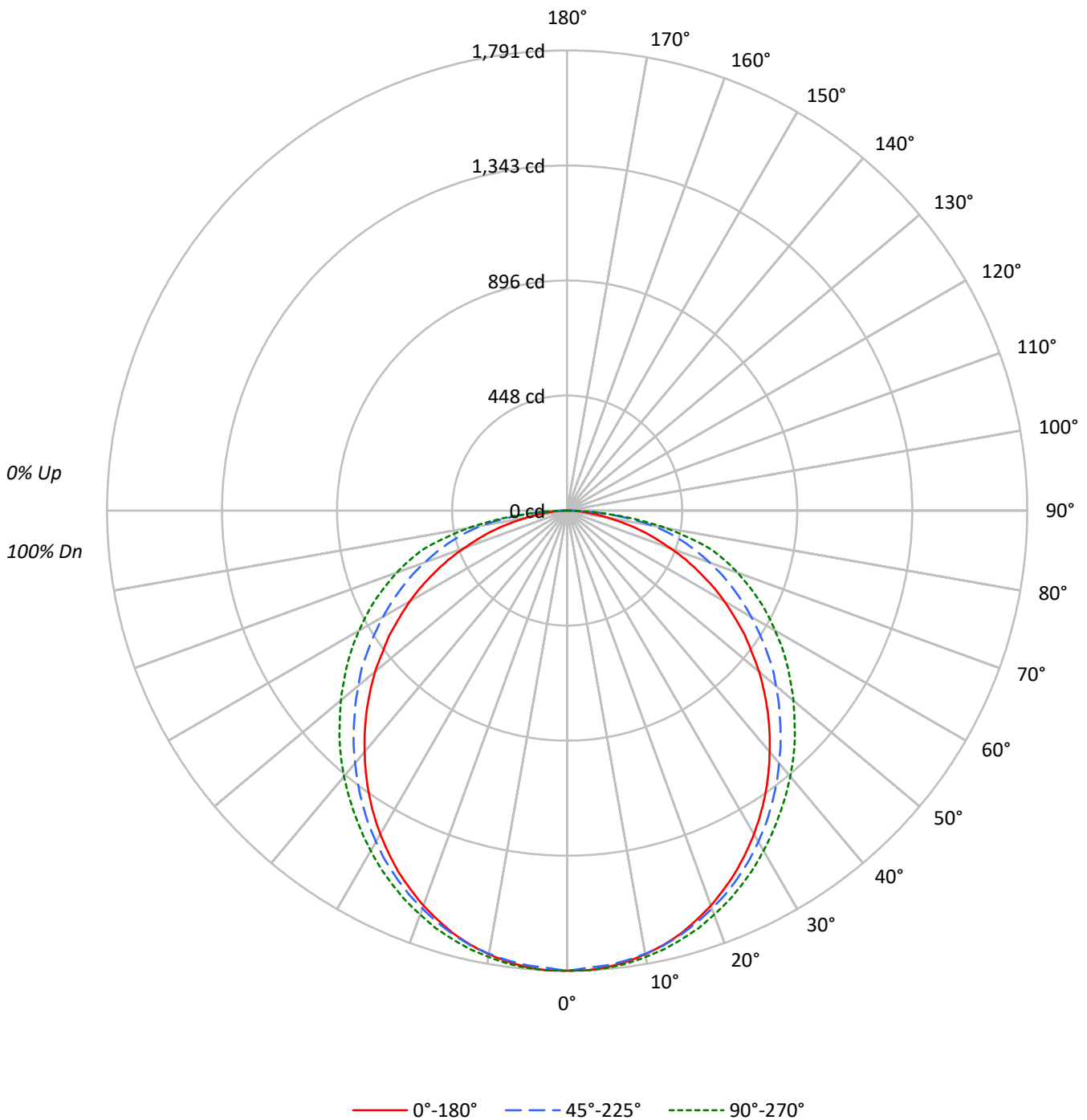
Input Watts (W): 40.827  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2409	2409	2409
5°	2409	2399	2414
10°	2395	2393	2410
15°	2375	2380	2405
20°	2342	2360	2396
25°	2304	2339	2386
30°	2259	2312	2376
35°	2210	2283	2368
40°	2154	2254	2373
45°	2100	2232	2384
50°	2042	2221	2407
55°	1979	2217	2451
60°	1902	2227	2515
65°	1802	2261	2624
70°	1674	2318	2773
75°	1527	2434	3007
80°	1255	2620	3006
85°	962	2418	2583



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	169.4	3.2
10°-20°	483.5	9.1
20°-30°	727.6	13.6
30°-40°	871.9	16.3
40°-50°	908.7	17.0
50°-60°	845.4	15.9
60°-70°	696.3	13.1
70°-80°	474.2	8.9
80°-90°	156.5	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°	1380.5	25.9
0°-40°	2252.4	42.2
0°-60°	4006.5	75.1
0°-90°	5333.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5333.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1791	1791	1791	1791	1791	
5°	1784	1784	1776	1785	1787	169
15°	1705	1707	1709	1725	1727	480
25°	1552	1559	1575	1602	1607	715
35°	1346	1362	1390	1428	1442	841
45°	1104	1127	1173	1232	1253	851
55°	844	872	945	1020	1045	752
65°	566	614	710	794	824	562
75°	294	360	468	552	578	310
85°	62	121	157	167	167	77
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1790.7	1790.7	1790.7	1790.7	1790.7
2.5°	1790.7	1790.7	1781.8	1790.7	1790.7
5°	1783.6	1783.6	1776.5	1785.4	1787.2
7.5°	1771.1	1772.9	1765.8	1776.5	1778.3
10°	1753.3	1755.1	1751.6	1762.2	1764.0
12.5°	1732.0	1733.8	1733.8	1746.2	1748.0
15°	1705.3	1707.1	1708.8	1724.9	1726.6
17.5°	1671.5	1676.8	1680.4	1699.9	1703.5
20°	1635.9	1641.2	1648.3	1669.7	1673.2
22.5°	1594.9	1602.0	1614.5	1637.6	1643.0
25°	1552.2	1559.3	1575.3	1602.0	1607.4
27.5°	1504.1	1514.8	1534.4	1562.9	1570.0
30°	1454.3	1465.0	1488.1	1518.4	1529.1
32.5°	1400.9	1415.1	1441.8	1475.7	1486.3
35°	1345.7	1361.7	1390.2	1427.6	1441.8
37.5°	1287.0	1304.8	1338.6	1379.5	1397.3
40°	1226.4	1247.8	1283.4	1331.5	1351.1
42.5°	1165.9	1185.5	1230.0	1281.6	1303.0
45°	1103.6	1126.8	1173.0	1231.8	1253.1
47.5°	1039.5	1062.7	1117.9	1180.2	1199.7
50°	975.5	998.6	1060.9	1126.8	1149.9
52.5°	906.0	936.3	1007.5	1073.4	1096.5
55°	843.7	872.2	945.2	1020.0	1044.9
57.5°	772.5	806.4	886.5	964.8	991.5
60°	706.7	742.3	827.7	907.8	934.5
62.5°	639.0	678.2	769.0	850.9	881.1
65°	566.1	614.1	710.2	793.9	824.2
67.5°	500.2	550.0	651.5	736.9	763.6
70°	425.4	486.0	589.2	674.6	704.9
72.5°	361.3	421.9	530.5	614.1	644.4
75°	293.7	359.6	468.2	551.8	578.5
77.5°	226.1	299.0	407.6	471.7	480.6
80°	162.0	238.5	338.2	375.6	388.0
82.5°	113.9	183.3	249.2	274.1	281.2
85°	62.3	121.0	156.6	167.3	167.3
87.5°	26.7	51.6	62.3	64.1	65.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)