

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: P276583

Luminaire Tested: **24CZ2-45-S-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276583  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-45-S-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4576.3 lumens  
Efficiency: N/A  
Efficacy: 128.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

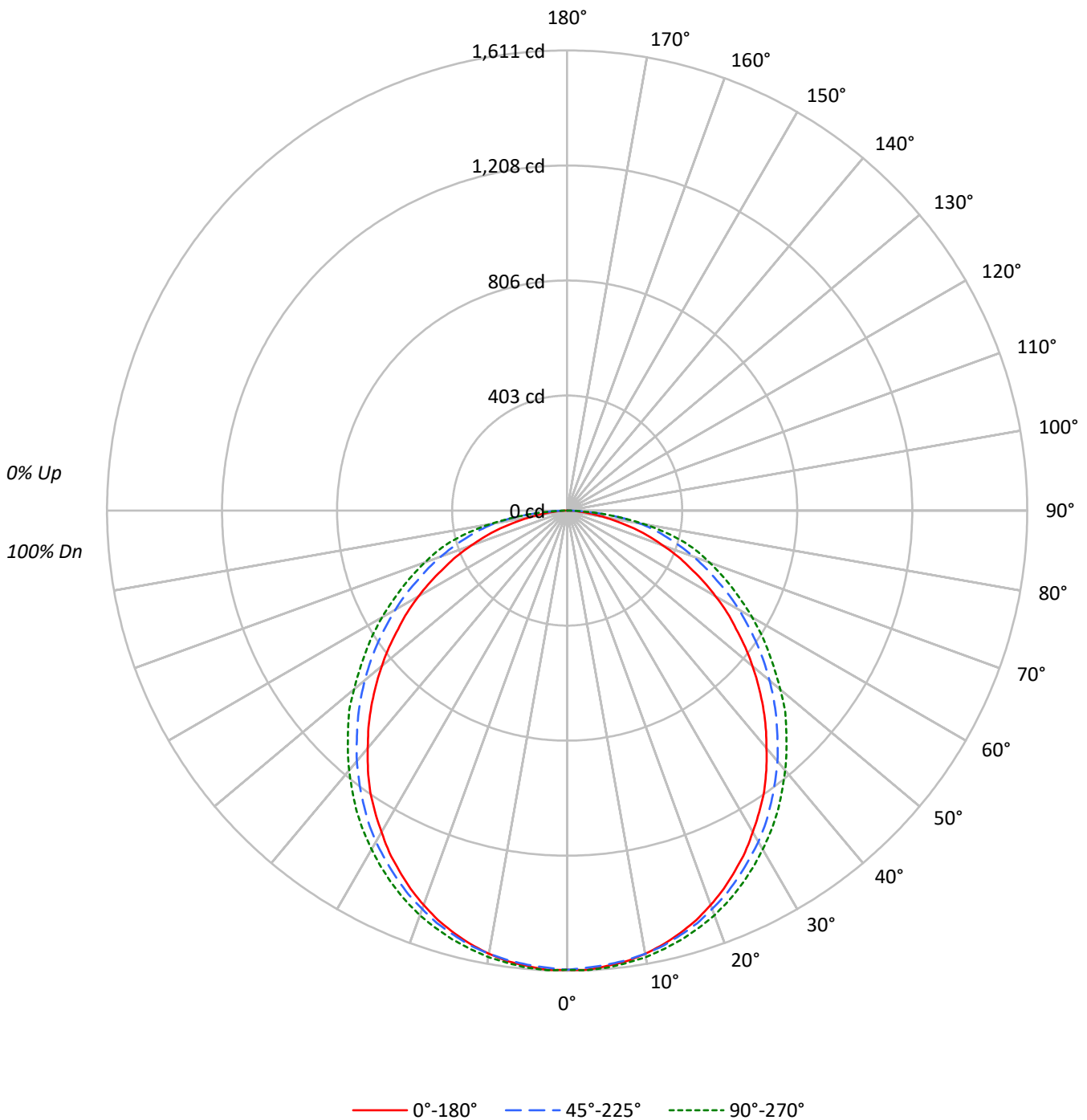
Input Watts (W): 35.619  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	2163	2163	2163
5°	2162	2156	2169
10°	2153	2153	2169
15°	2132	2142	2165
20°	2104	2125	2158
25°	2065	2104	2145
30°	2019	2080	2127
35°	1974	2046	2111
40°	1907	2012	2086
45°	1845	1972	2063
50°	1774	1935	2039
55°	1695	1899	2019
60°	1615	1870	2014
65°	1513	1837	2027
70°	1401	1847	2081
75°	1254	1882	2199
80°	1013	1994	2151
85°	763	1751	1706



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.2	3.3
10°-20°	434.9	9.5
20°-30°	653.7	14.3
30°-40°	778.7	17.0
40°-50°	797.0	17.4
50°-60°	717.5	15.7
60°-70°	563.5	12.3
70°-80°	365.7	8.0
80°-90°	113.1	2.5
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°	1240.8	27.1
0°-40°	2019.6	44.1
0°-60°	3534.0	77.2
0°-90°	4576.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4576.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1608	1608	1608	1608	1608	
5°	1600	1603	1596	1605	1606	152
15°	1531	1535	1538	1551	1554	432
25°	1391	1403	1417	1440	1445	641
35°	1202	1217	1246	1276	1285	750
45°	970	993	1036	1076	1084	748
55°	722	754	810	852	860	648
65°	475	512	577	625	637	473
75°	241	288	362	411	423	255
85°	49	92	113	110	110	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1607.7	1607.7	1607.7	1607.7	1607.7
2.5°	1609.2	1609.2	1601.9	1609.2	1610.6
5°	1600.4	1603.3	1596.1	1604.8	1606.2
7.5°	1591.7	1591.7	1587.4	1596.1	1597.5
10°	1575.7	1577.2	1575.7	1585.9	1587.4
12.5°	1555.4	1558.3	1559.7	1569.9	1571.4
15°	1530.7	1535.0	1537.9	1551.0	1553.9
17.5°	1503.0	1507.4	1514.7	1529.2	1532.1
20°	1469.6	1475.4	1484.1	1503.0	1507.4
22.5°	1433.3	1439.1	1453.6	1471.1	1478.3
25°	1391.1	1402.7	1417.3	1440.5	1444.9
27.5°	1349.0	1359.1	1378.0	1402.7	1408.6
30°	1299.5	1315.5	1338.8	1363.5	1369.3
32.5°	1251.6	1267.6	1295.2	1321.3	1328.6
35°	1202.1	1216.7	1245.8	1276.3	1285.0
37.5°	1145.5	1164.3	1196.3	1226.9	1235.6
40°	1085.9	1109.1	1145.5	1177.4	1187.6
42.5°	1029.2	1053.9	1090.2	1125.1	1136.7
45°	969.6	992.8	1036.4	1075.7	1084.4
47.5°	908.5	934.7	981.2	1020.4	1035.0
50°	847.5	875.1	924.5	965.2	973.9
52.5°	786.4	815.5	867.8	911.4	915.8
55°	722.4	754.4	809.7	851.8	860.5
57.5°	664.3	691.9	751.5	795.1	805.3
60°	600.3	630.9	694.8	735.5	748.6
62.5°	539.3	571.3	638.1	678.8	690.5
65°	475.3	511.7	577.1	625.1	636.7
67.5°	420.1	455.0	524.8	571.3	582.9
70°	356.1	395.4	469.5	517.5	529.1
72.5°	300.9	341.6	415.7	462.3	479.7
75°	241.3	287.8	362.0	411.4	423.0
77.5°	183.2	236.9	312.5	350.3	350.3
80°	130.8	187.5	257.3	274.7	277.6
82.5°	85.8	141.0	190.4	189.0	189.0
85°	49.4	91.6	113.4	110.5	110.5
87.5°	18.9	37.8	40.7	40.7	39.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)