

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: P276720

Luminaire Tested: **24CZ2-45-S-UNV-L92765-W2A1-U-5500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P276720  
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-L92765-W2A1-U-5500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4228.4 lumens  
Efficiency: N/A  
Efficacy: 117.5 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

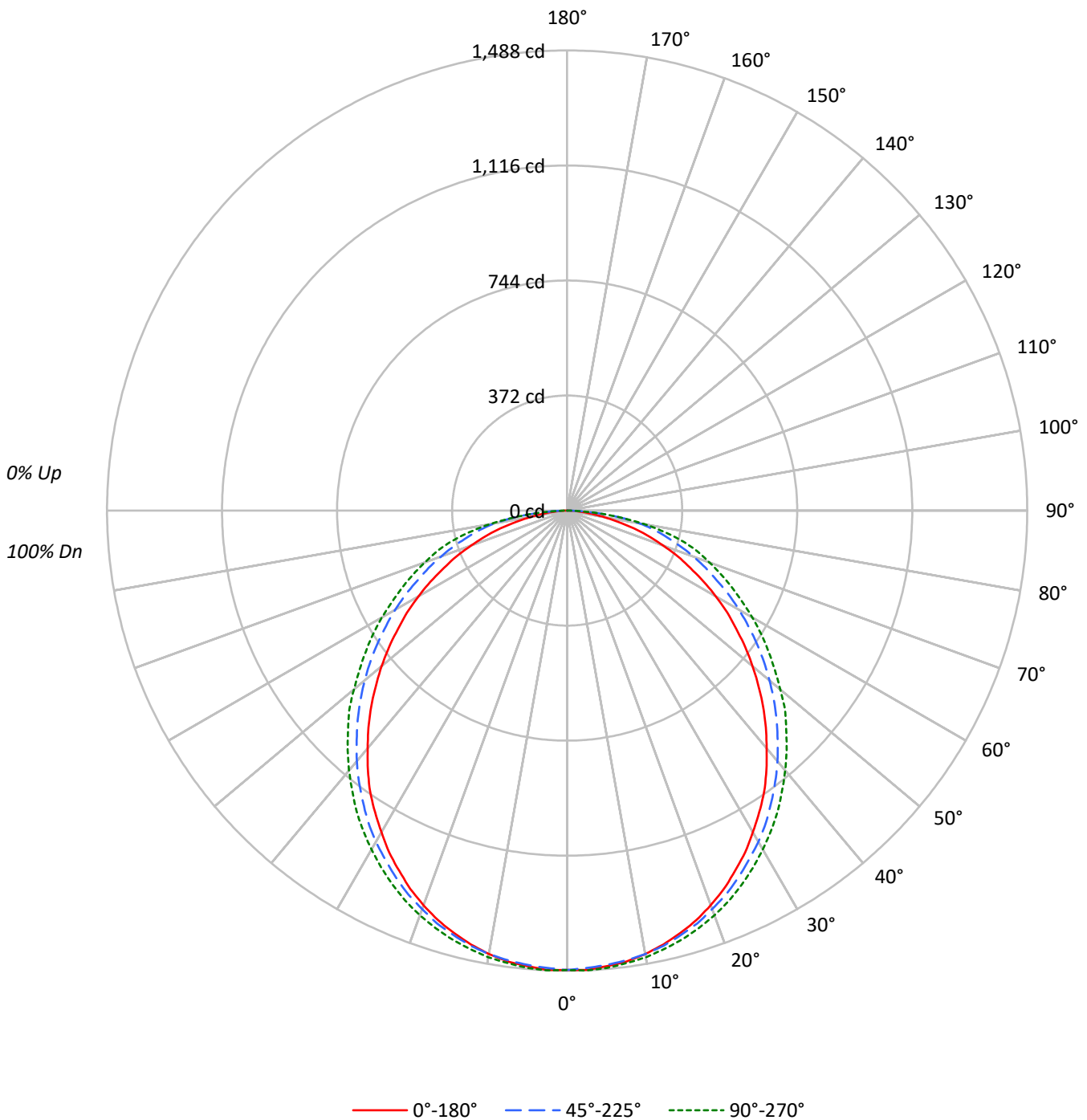
Input Watts (W): 35.991  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	1999	1999	1999
5°	1997	1992	2004
10°	1989	1989	2004
15°	1970	1979	2000
20°	1944	1963	1994
25°	1908	1944	1982
30°	1865	1922	1966
35°	1825	1891	1950
40°	1762	1859	1927
45°	1705	1822	1907
50°	1639	1788	1884
55°	1566	1755	1865
60°	1493	1728	1861
65°	1398	1698	1873
70°	1295	1707	1923
75°	1159	1738	2032
80°	937	1842	1987
85°	706	1618	1576



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.6	3.3
10°-20°	401.8	9.5
20°-30°	604.0	14.3
30°-40°	719.5	17.0
40°-50°	736.4	17.4
50°-60°	663.0	15.7
60°-70°	520.6	12.3
70°-80°	337.9	8.0
80°-90°	104.5	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°	1146.5	27.1
0°-40°	1866.0	44.1
0°-60°	3265.4	77.2
0°-90°	4228.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4228.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1486	1486	1486	1486	1486	
5°	1479	1482	1475	1483	1484	141
15°	1414	1418	1421	1433	1436	399
25°	1285	1296	1310	1331	1335	592
35°	1111	1124	1151	1179	1187	693
45°	896	917	958	994	1002	691
55°	668	697	748	787	795	598
65°	439	473	533	578	588	437
75°	223	266	334	380	391	236
85°	46	85	105	102	102	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1485.5	1485.5	1485.5	1485.5	1485.5
2.5°	1486.8	1486.8	1480.1	1486.8	1488.2
5°	1478.8	1481.5	1474.7	1482.8	1484.1
7.5°	1470.7	1470.7	1466.7	1474.7	1476.1
10°	1455.9	1457.3	1455.9	1465.3	1466.7
12.5°	1437.1	1439.8	1441.2	1450.6	1451.9
15°	1414.3	1418.3	1421.0	1433.1	1435.8
17.5°	1388.8	1392.8	1399.5	1413.0	1415.6
20°	1357.9	1363.3	1371.3	1388.8	1392.8
22.5°	1324.3	1329.7	1343.1	1359.2	1365.9
25°	1285.4	1296.1	1309.5	1331.0	1335.1
27.5°	1246.4	1255.8	1273.3	1296.1	1301.5
30°	1200.7	1215.5	1237.0	1259.8	1265.2
32.5°	1156.4	1171.2	1196.7	1220.9	1227.6
35°	1110.8	1124.2	1151.0	1179.3	1187.3
37.5°	1058.4	1075.8	1105.4	1133.6	1141.6
40°	1003.3	1024.8	1058.4	1087.9	1097.3
42.5°	950.9	973.8	1007.3	1039.6	1050.3
45°	895.9	917.3	957.6	993.9	1002.0
47.5°	839.4	863.6	906.6	942.9	956.3
50°	783.0	808.6	854.2	891.8	899.9
52.5°	726.6	753.5	801.8	842.1	846.2
55°	667.5	697.1	748.1	787.1	795.1
57.5°	613.8	639.3	694.4	734.7	744.1
60°	554.7	582.9	642.0	679.6	691.7
62.5°	498.3	527.8	589.6	627.2	638.0
65°	439.2	472.8	533.2	577.5	588.3
67.5°	388.2	420.4	484.9	527.8	538.6
70°	329.1	365.3	433.8	478.1	488.9
72.5°	278.0	315.6	384.1	427.1	443.2
75°	223.0	265.9	334.4	380.1	390.8
77.5°	169.2	218.9	288.8	323.7	323.7
80°	120.9	173.3	237.7	253.8	256.5
82.5°	79.2	130.3	175.9	174.6	174.6
85°	45.7	84.6	104.8	102.1	102.1
87.5°	17.5	34.9	37.6	37.6	36.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)