

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: P276698

Luminaire Tested: **24CZ2-35-S-UNV-L92765-W2A1-U-3500K**

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: P276698  
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: 24CZ2-35-S-UNV-L92765-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3024.7 lumens  
Efficiency: N/A  
Efficacy: 115.7 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

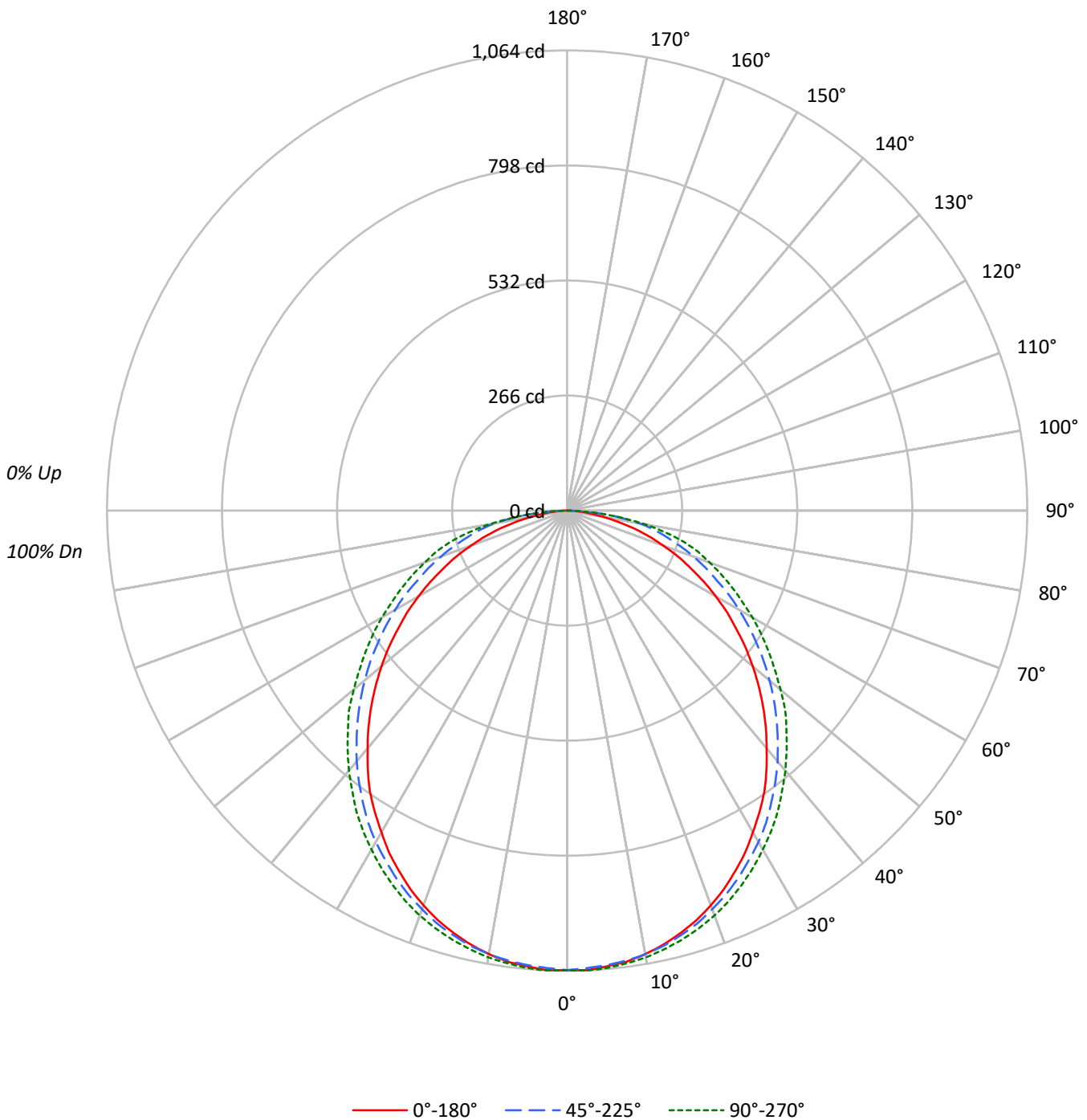
Input Watts (W): 26.133  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1430	1430	1430
5°	1429	1425	1434
10°	1423	1423	1433
15°	1409	1416	1431
20°	1391	1404	1427
25°	1365	1391	1418
30°	1334	1375	1406
35°	1305	1352	1395
40°	1261	1330	1379
45°	1219	1303	1364
50°	1172	1279	1347
55°	1120	1255	1334
60°	1068	1236	1331
65°	1000	1214	1340
70°	926	1221	1376
75°	829	1243	1454
80°	670	1318	1422
85°	505	1156	1127



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.6	3.3
10°-20°	287.4	9.5
20°-30°	432.1	14.3
30°-40°	514.7	17.0
40°-50°	526.8	17.4
50°-60°	474.2	15.7
60°-70°	372.4	12.3
70°-80°	241.7	8.0
80°-90°	74.8	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°	820.1	27.1
0°-40°	1334.8	44.1
0°-60°	2335.8	77.2
0°-90°	3024.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3024.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1063	1063	1063	1063	1063	
5°	1058	1060	1055	1061	1062	101
15°	1012	1015	1016	1025	1027	285
25°	920	927	937	952	955	424
35°	795	804	823	844	849	496
45°	641	656	685	711	717	494
55°	478	499	535	563	569	428
65°	314	338	381	413	421	313
75°	160	190	239	272	280	169
85°	33	60	75	73	73	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1062.6	1062.6	1062.6	1062.6	1062.6
2.5°	1063.6	1063.6	1058.8	1063.6	1064.5
5°	1057.8	1059.7	1054.9	1060.7	1061.6
7.5°	1052.0	1052.0	1049.2	1054.9	1055.9
10°	1041.5	1042.4	1041.5	1048.2	1049.2
12.5°	1028.0	1029.9	1030.9	1037.6	1038.6
15°	1011.7	1014.6	1016.5	1025.1	1027.1
17.5°	993.4	996.3	1001.1	1010.7	1012.6
20°	971.3	975.2	980.9	993.4	996.3
22.5°	947.3	951.2	960.8	972.3	977.1
25°	919.5	927.1	936.7	952.1	955.0
27.5°	891.6	898.3	910.8	927.1	931.0
30°	858.9	869.5	884.9	901.2	905.0
32.5°	827.2	837.8	856.0	873.3	878.1
35°	794.6	804.2	823.4	843.6	849.3
37.5°	757.1	769.6	790.7	810.9	816.6
40°	717.7	733.1	757.1	778.2	784.9
42.5°	680.2	696.6	720.6	743.6	751.3
45°	640.8	656.2	685.0	711.0	716.7
47.5°	600.5	617.8	648.5	674.5	684.1
50°	560.1	578.4	611.0	637.9	643.7
52.5°	519.8	539.0	573.6	602.4	605.3
55°	477.5	498.6	535.1	563.0	568.8
57.5°	439.1	457.3	496.7	525.5	532.3
60°	396.8	417.0	459.2	486.1	494.8
62.5°	356.4	377.6	421.8	448.7	456.4
65°	314.2	338.2	381.4	413.1	420.8
67.5°	277.7	300.7	346.8	377.6	385.3
70°	235.4	261.3	310.3	342.0	349.7
72.5°	198.9	225.8	274.8	305.5	317.1
75°	159.5	190.2	239.2	271.9	279.6
77.5°	121.1	156.6	206.6	231.5	231.5
80°	86.5	123.9	170.1	181.6	183.5
82.5°	56.7	93.2	125.9	124.9	124.9
85°	32.7	60.5	74.9	73.0	73.0
87.5°	12.5	25.0	26.9	26.9	25.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)