

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: P276443

Luminaire Tested: **24CZ2-35-S-UNV-L93050-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: P276443  
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-L93050-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: 3005.3 lumens  
Efficiency: N/A  
Efficacy: 113.3 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

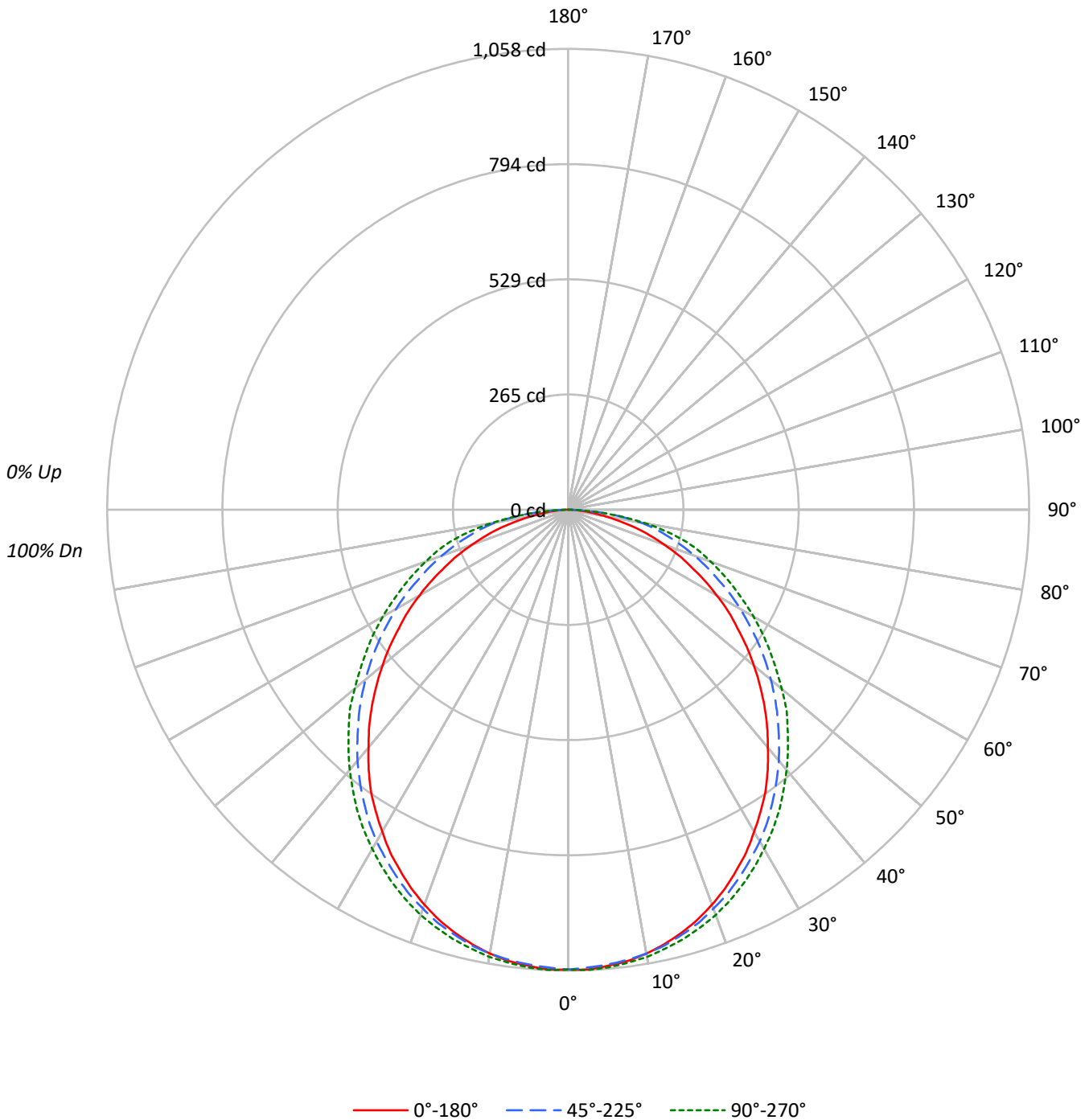
Input Watts (W): 26.53476  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1421	1421	1421
5°	1420	1416	1425
10°	1414	1414	1424
15°	1400	1407	1422
20°	1382	1395	1417
25°	1356	1382	1409
30°	1326	1366	1397
35°	1297	1344	1386
40°	1252	1321	1370
45°	1212	1295	1355
50°	1165	1271	1339
55°	1113	1247	1326
60°	1061	1228	1323
65°	994	1207	1331
70°	920	1213	1367
75°	824	1236	1444
80°	666	1309	1413
85°	502	1150	1119



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.0	3.3
10°-20°	285.6	9.5
20°-30°	429.3	14.3
30°-40°	511.4	17.0
40°-50°	523.4	17.4
50°-60°	471.2	15.7
60°-70°	370.0	12.3
70°-80°	240.2	8.0
80°-90°	74.3	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°	814.9	27.1
0°-40°	1326.2	44.1
0°-60°	2320.8	77.2
0°-90°	3005.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3005.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1056	1056	1056	1056	1056	
5°	1051	1053	1048	1054	1055	100
15°	1005	1008	1010	1018	1020	283
25°	914	921	931	946	949	421
35°	789	799	818	838	844	492
45°	637	652	681	706	712	491
55°	474	495	532	559	565	425
65°	312	336	379	410	418	311
75°	158	189	238	270	278	168
85°	32	60	74	72	72	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1055.8	1055.8	1055.8	1055.8	1055.8
2.5°	1056.7	1056.7	1052.0	1056.7	1057.7
5°	1051.0	1052.9	1048.1	1053.9	1054.8
7.5°	1045.3	1045.3	1042.4	1048.1	1049.1
10°	1034.8	1035.7	1034.8	1041.5	1042.4
12.5°	1021.4	1023.3	1024.3	1031.0	1031.9
15°	1005.2	1008.0	1010.0	1018.5	1020.5
17.5°	987.0	989.9	994.7	1004.2	1006.1
20°	965.1	968.9	974.6	987.0	989.9
22.5°	941.2	945.0	954.6	966.0	970.8
25°	913.5	921.2	930.7	946.0	948.9
27.5°	885.9	892.5	905.0	921.2	925.0
30°	853.4	863.9	879.2	895.4	899.2
32.5°	821.9	832.4	850.5	867.7	872.5
35°	789.4	799.0	818.1	838.1	843.9
37.5°	752.2	764.6	785.6	805.7	811.4
40°	713.1	728.4	752.2	773.2	779.9
42.5°	675.9	692.1	715.9	738.9	746.5
45°	636.7	652.0	680.6	706.4	712.1
47.5°	596.6	613.8	644.3	670.1	679.7
50°	556.5	574.7	607.1	633.8	639.6
52.5°	516.4	535.5	569.9	598.5	601.4
55°	474.4	495.4	531.7	559.4	565.1
57.5°	436.2	454.4	493.5	522.2	528.8
60°	394.2	414.3	456.3	483.0	491.6
62.5°	354.2	375.2	419.1	445.8	453.4
65°	312.2	336.0	379.0	410.5	418.1
67.5°	275.9	298.8	344.6	375.2	382.8
70°	233.9	259.6	308.3	339.8	347.5
72.5°	197.6	224.3	273.0	303.6	315.0
75°	158.5	189.0	237.7	270.1	277.8
77.5°	120.3	155.6	205.2	230.1	230.1
80°	85.9	123.1	169.0	180.4	182.3
82.5°	56.3	92.6	125.1	124.1	124.1
85°	32.5	60.1	74.5	72.5	72.5
87.5°	12.4	24.8	26.7	26.7	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)