

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: P276392

Luminaire Tested: **24CZ2-35HE-S-UNV-L93050-W2A1-U-3000K**

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: P276392  
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: 24CZ2-35HE-S-UNV-L93050-W2A1-U-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2721.3 lumens  
Efficiency: N/A  
Efficacy: 110.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

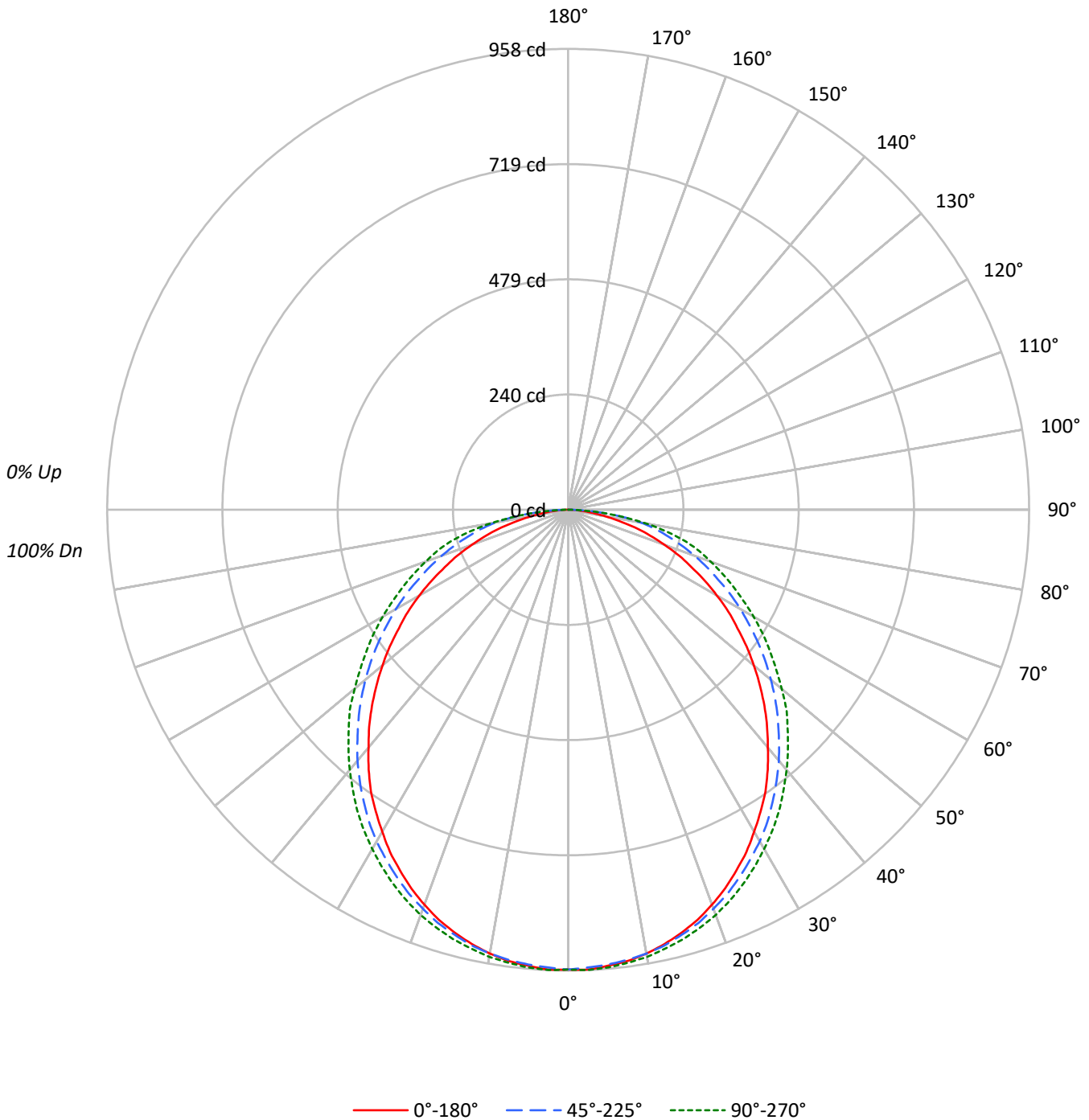
Input Watts (W): 24.73614  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1286	1286	1286
5°	1285	1282	1290
10°	1280	1280	1290
15°	1268	1274	1287
20°	1251	1264	1284
25°	1228	1251	1276
30°	1201	1237	1265
35°	1174	1217	1255
40°	1134	1196	1240
45°	1097	1173	1227
50°	1055	1151	1212
55°	1008	1129	1200
60°	961	1112	1198
65°	900	1093	1205
70°	833	1098	1238
75°	746	1119	1307
80°	603	1185	1279
85°	454	1041	1014



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.5	3.3
10°-20°	258.6	9.5
20°-30°	388.8	14.3
30°-40°	463.1	17.0
40°-50°	473.9	17.4
50°-60°	426.7	15.7
60°-70°	335.1	12.3
70°-80°	217.5	8.0
80°-90°	67.3	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°	737.9	27.1
0°-40°	1200.9	44.1
0°-60°	2101.5	77.2
0°-90°	2721.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2721.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	956	956	956	956	956	
5°	952	953	949	954	955	90
15°	910	913	914	922	924	257
25°	827	834	843	857	859	381
35°	715	724	741	759	764	446
45°	577	590	616	640	645	444
55°	430	449	482	506	512	385
65°	283	304	343	372	379	281
75°	144	171	215	245	252	152
85°	29	54	67	66	66	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	956.0	956.0	956.0	956.0	956.0
2.5°	956.9	956.9	952.6	956.9	957.8
5°	951.7	953.4	949.1	954.3	955.2
7.5°	946.5	946.5	943.9	949.1	950.0
10°	937.0	937.9	937.0	943.1	943.9
12.5°	924.9	926.6	927.5	933.6	934.4
15°	910.2	912.8	914.5	922.3	924.0
17.5°	893.8	896.4	900.7	909.3	911.1
20°	873.9	877.4	882.6	893.8	896.4
22.5°	852.3	855.8	864.4	874.8	879.1
25°	827.2	834.1	842.8	856.6	859.2
27.5°	802.2	808.2	819.4	834.1	837.6
30°	772.8	782.3	796.1	810.8	814.3
32.5°	744.2	753.8	770.2	785.7	790.1
35°	714.9	723.5	740.8	758.9	764.1
37.5°	681.1	692.4	711.4	729.6	734.7
40°	645.7	659.5	681.1	700.2	706.2
42.5°	612.0	626.7	648.3	669.0	676.0
45°	576.6	590.4	616.3	639.7	644.8
47.5°	540.2	555.8	583.5	606.8	615.5
50°	503.9	520.4	549.8	574.0	579.1
52.5°	467.6	484.9	516.0	542.0	544.6
55°	429.6	448.6	481.5	506.5	511.7
57.5°	395.0	411.5	446.9	472.8	478.9
60°	357.0	375.1	413.2	437.4	445.2
62.5°	320.7	339.7	379.5	403.7	410.6
65°	282.7	304.3	343.2	371.7	378.6
67.5°	249.8	270.6	312.0	339.7	346.6
70°	211.8	235.1	279.2	307.7	314.6
72.5°	178.9	203.1	247.2	274.9	285.3
75°	143.5	171.2	215.2	244.6	251.5
77.5°	108.9	140.9	185.8	208.3	208.3
80°	77.8	111.5	153.0	163.4	165.1
82.5°	51.0	83.8	113.2	112.4	112.4
85°	29.4	54.5	67.4	65.7	65.7
87.5°	11.2	22.5	24.2	24.2	23.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)