

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: P258841

Luminaire Tested: **14CZ-LD5-29-S-UNV-L92765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258841  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35112)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ-LD5-29-S-UNV-L92765-W2A1-U-5000K  
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2772.0 lumens  
Efficiency: N/A  
Efficacy: 122.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

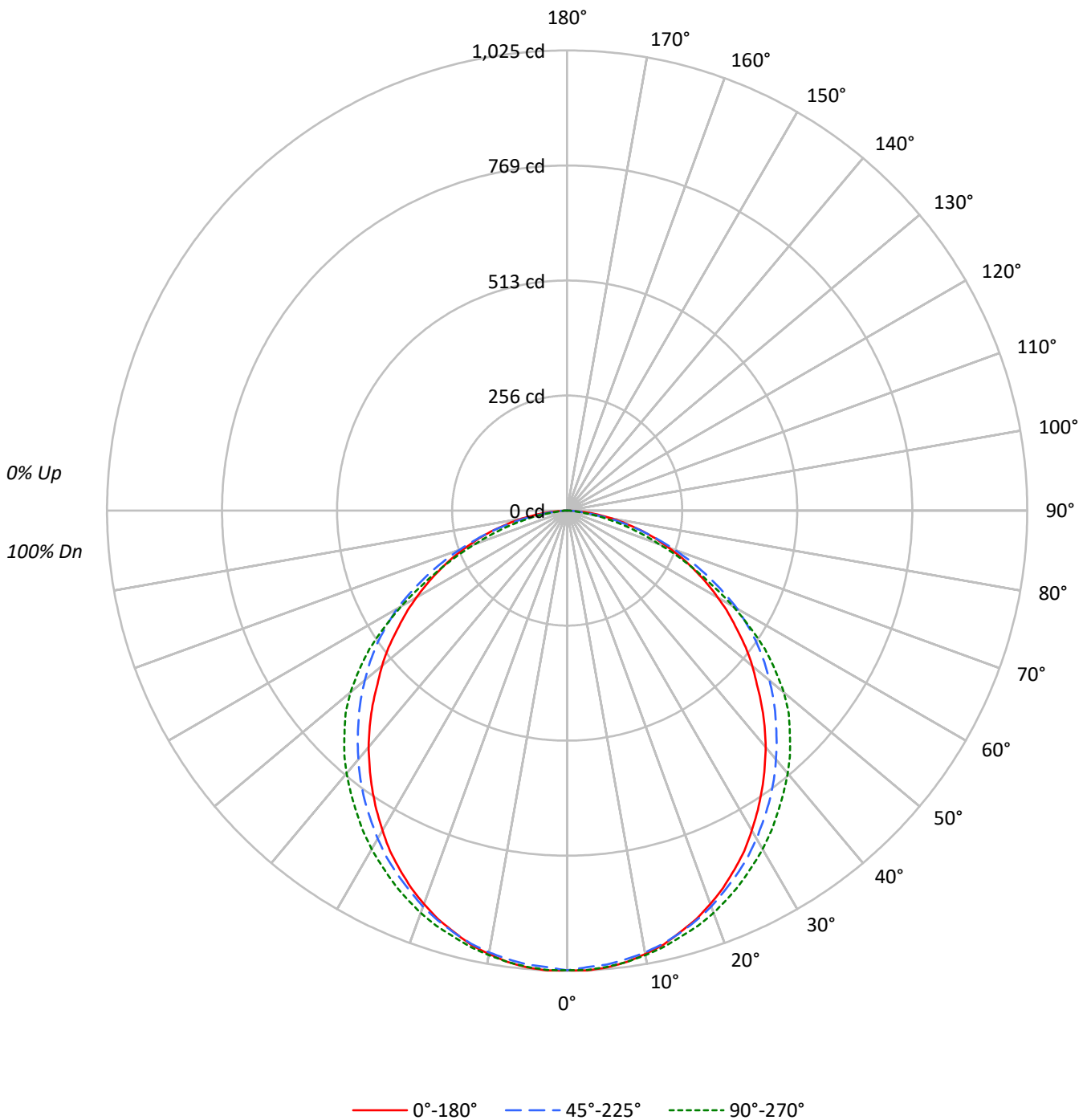
Input Watts (W): 22.692  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	89	87	85					85			
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60					60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44					44			
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39					39			
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31					31			
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28					28			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25					25			

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

	0°	45°	90°
0°	2756	2756	2756
5°	2759	2743	2756
10°	2741	2731	2747
15°	2708	2712	2736
20°	2671	2688	2731
25°	2619	2655	2718
30°	2556	2621	2706
35°	2487	2585	2690
40°	2417	2543	2686
45°	2332	2501	2670
50°	2254	2462	2637
55°	2168	2422	2521
60°	2088	2354	2300
65°	1997	2202	2021
70°	1885	2002	1710
75°	1759	1734	1413
80°	1551	1340	1034
85°	1220	648	571



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.8	3.5
10°-20°	275.6	9.9
20°-30°	413.7	14.9
30°-40°	493.2	17.8
40°-50°	508.0	18.3
50°-60°	452.7	16.3
60°-70°	326.2	11.8
70°-80°	170.6	6.2
80°-90°	35.3	1.3
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°	786.1	28.4
0°-40°	1279.2	46.1
0°-60°	2239.9	80.8
0°-90°	2772.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2772.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1024	1024	1024	1024	1024	
5°	1022	1019	1015	1022	1020	97
15°	972	973	973	983	982	274
25°	882	887	894	912	915	406
35°	757	767	787	813	819	474
45°	613	626	657	694	702	473
55°	462	477	516	540	537	414
65°	314	325	346	330	317	311
75°	169	178	167	144	136	179
85°	40	35	21	18	18	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1024.0	1024.0	1024.0	1024.0	1024.0
2.5°	1025.2	1022.7	1017.8	1024.0	1024.0
5°	1021.5	1019.0	1015.3	1021.5	1020.3
7.5°	1014.1	1011.6	1007.9	1015.3	1014.1
10°	1003.0	1001.7	999.3	1006.7	1005.4
12.5°	990.6	989.4	988.2	995.6	995.6
15°	972.1	973.3	973.3	983.2	982.0
17.5°	954.8	956.0	957.3	969.6	969.6
20°	932.6	933.8	938.7	952.3	953.6
22.5°	909.1	910.3	916.5	932.6	935.0
25°	881.9	886.9	894.3	911.6	915.3
27.5°	854.8	858.5	870.8	890.6	893.0
30°	822.6	830.1	843.6	865.9	870.8
32.5°	790.5	799.2	815.2	839.9	846.1
35°	757.2	767.1	786.8	812.8	818.9
37.5°	722.6	731.2	755.9	783.1	791.8
40°	688.0	696.7	723.8	754.7	764.6
42.5°	650.9	663.3	690.5	725.1	734.9
45°	612.7	626.2	657.1	694.2	701.6
47.5°	573.1	588.0	623.8	660.8	669.5
50°	538.5	552.1	588.0	623.8	630.0
52.5°	501.5	513.8	553.4	583.0	584.2
55°	462.0	476.8	516.3	539.8	537.3
57.5°	426.1	438.5	476.8	489.1	481.7
60°	387.9	399.0	437.3	438.5	427.4
62.5°	350.8	361.9	391.6	382.9	369.3
65°	313.7	324.9	345.9	329.8	317.4
67.5°	277.9	287.8	300.2	279.2	266.8
70°	239.6	253.2	254.5	229.7	217.4
72.5°	206.3	213.7	211.2	187.7	176.6
75°	169.2	177.9	166.8	144.5	135.9
77.5°	134.6	140.8	126.0	105.0	98.8
80°	100.1	103.8	86.5	70.4	66.7
82.5°	67.9	67.9	49.4	38.3	34.6
85°	39.5	34.6	21.0	18.5	18.5
87.5°	13.6	8.6	8.6	8.6	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)