

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: P258717

Luminaire Tested: **14CZ-LD5-29-S-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258717  
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-L83050-W2A1-U-4500K  
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3178.7 lumens  
Efficiency: N/A  
Efficacy: 136.7 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

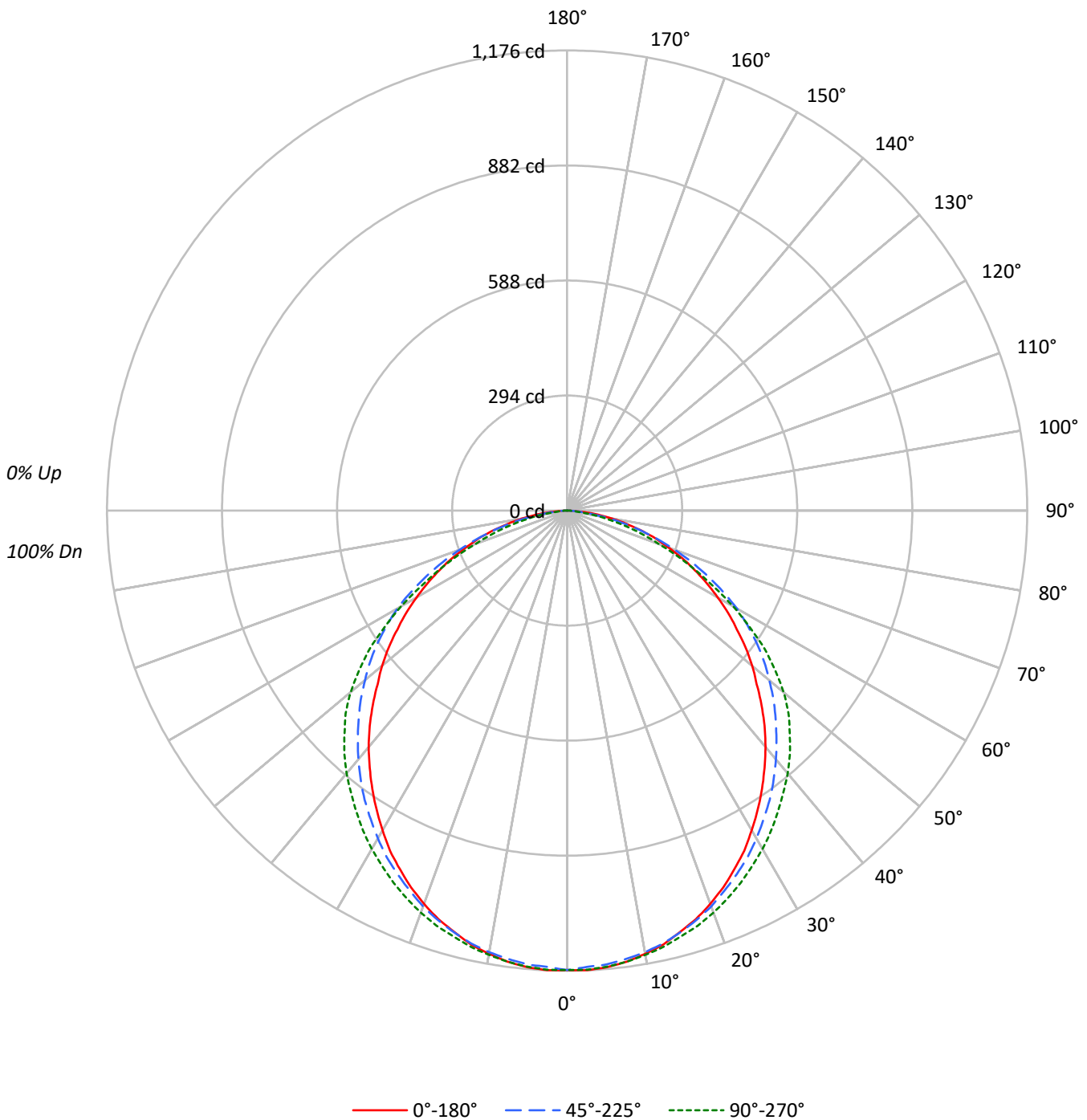
Input Watts (W): 23.25  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	3160	3160	3160
5°	3164	3145	3160
10°	3143	3131	3151
15°	3105	3109	3137
20°	3062	3083	3131
25°	3003	3045	3116
30°	2931	3006	3103
35°	2852	2964	3085
40°	2772	2916	3080
45°	2674	2868	3062
50°	2586	2822	3024
55°	2485	2778	2890
60°	2394	2699	2638
65°	2291	2525	2318
70°	2162	2296	1961
75°	2018	1988	1620
80°	1777	1537	1185
85°	1399	744	655



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.9	3.5
10°-20°	316.1	9.9
20°-30°	474.4	14.9
30°-40°	565.5	17.8
40°-50°	582.5	18.3
50°-60°	519.1	16.3
60°-70°	374.1	11.8
70°-80°	195.6	6.2
80°-90°	40.5	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°	901.4	28.4
0°-40°	1466.9	46.1
0°-60°	2568.6	80.8
0°-90°	3178.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3178.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1174	1174	1174	1174	1174	
5°	1171	1169	1164	1171	1170	111
15°	1115	1116	1116	1128	1126	315
25°	1011	1017	1026	1045	1050	466
35°	868	880	902	932	939	543
45°	703	718	754	796	804	542
55°	530	547	592	619	616	475
65°	360	372	397	378	364	356
75°	194	204	191	166	156	206
85°	45	40	24	21	21	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1174.2	1174.2	1174.2	1174.2	1174.2
2.5°	1175.6	1172.8	1167.1	1174.2	1174.2
5°	1171.4	1168.6	1164.3	1171.4	1170.0
7.5°	1162.9	1160.1	1155.8	1164.3	1162.9
10°	1150.1	1148.7	1145.9	1154.4	1153.0
12.5°	1136.0	1134.6	1133.1	1141.6	1141.6
15°	1114.7	1116.1	1116.1	1127.5	1126.1
17.5°	1094.9	1096.3	1097.7	1111.9	1111.9
20°	1069.4	1070.8	1076.5	1092.1	1093.5
22.5°	1042.5	1043.9	1051.0	1069.4	1072.2
25°	1011.3	1017.0	1025.5	1045.3	1049.6
27.5°	980.2	984.4	998.6	1021.2	1024.1
30°	943.3	951.8	967.4	992.9	998.6
32.5°	906.5	916.4	934.8	963.2	970.3
35°	868.3	879.6	902.3	932.0	939.1
37.5°	828.6	838.5	866.9	898.0	907.9
40°	789.0	798.9	830.0	865.4	876.8
42.5°	746.5	760.6	791.8	831.4	842.8
45°	702.6	718.1	753.5	796.0	804.5
47.5°	657.2	674.2	715.3	757.8	767.7
50°	617.6	633.1	674.2	715.3	722.4
52.5°	575.1	589.2	634.6	668.6	670.0
55°	529.7	546.7	592.1	619.0	616.1
57.5°	488.7	502.8	546.7	560.9	552.4
60°	444.8	457.5	501.4	502.8	490.1
62.5°	402.3	415.0	449.0	439.1	423.5
65°	359.8	372.5	396.6	378.2	364.0
67.5°	318.7	330.0	344.2	320.1	305.9
70°	274.8	290.4	291.8	263.5	249.3
72.5°	236.5	245.0	242.2	215.3	202.5
75°	194.1	204.0	191.2	165.7	155.8
77.5°	154.4	161.5	144.5	120.4	113.3
80°	114.7	119.0	99.2	80.7	76.5
82.5°	77.9	77.9	56.7	43.9	39.7
85°	45.3	39.7	24.1	21.2	21.2
87.5°	15.6	9.9	9.9	9.9	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)