

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: P258800

Luminaire Tested: **14CZ-LD5-39-S-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258800  
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-LD5-39-S-UNV-L82765-W2A1-U-2700K  
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3652.0 lumens  
Efficiency: N/A  
Efficacy: 117.9 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

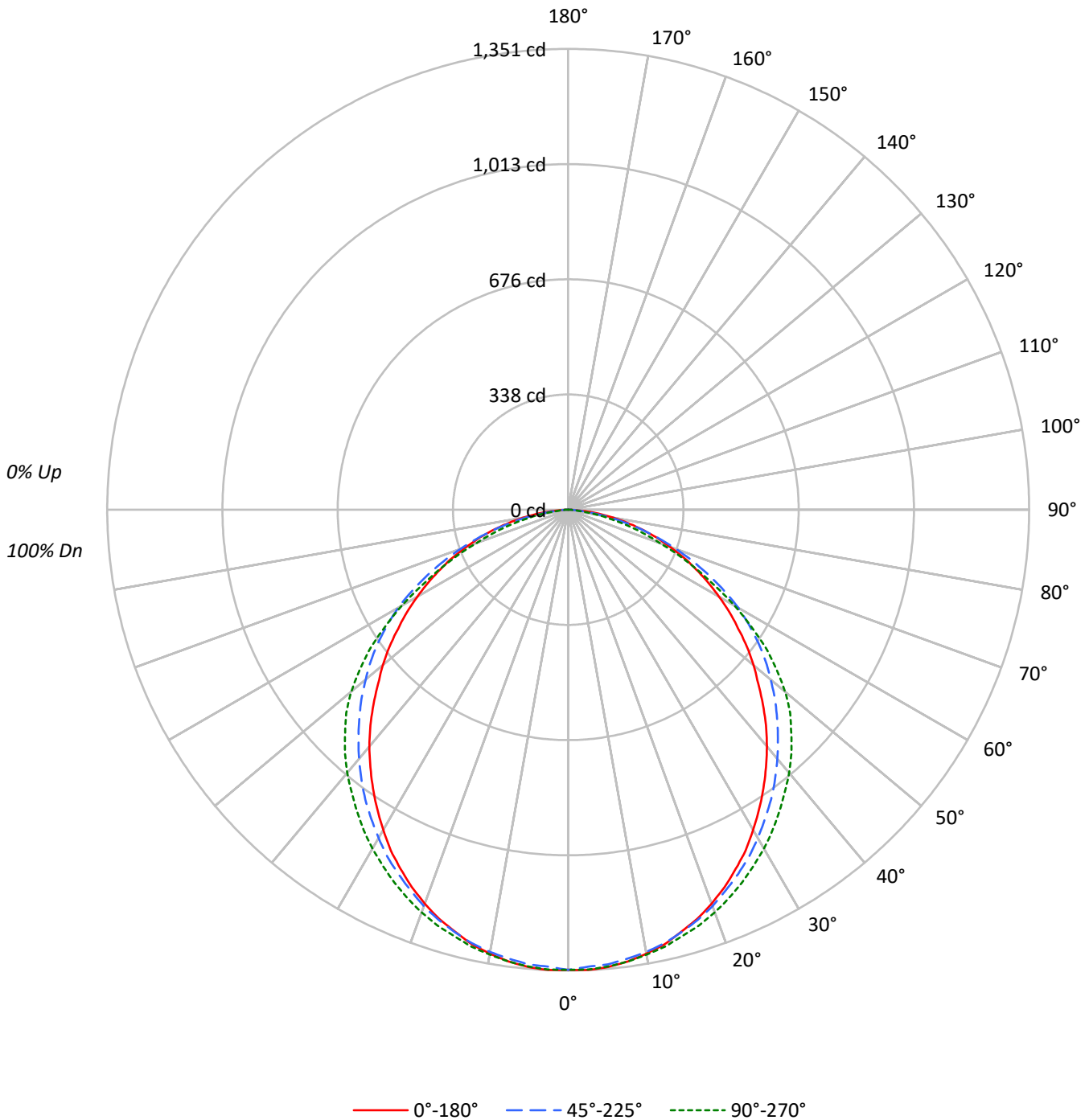
Input Watts (W): 30.969  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3630	3630	3630
5°	3635	3613	3631
10°	3611	3597	3619
15°	3568	3572	3604
20°	3518	3542	3598
25°	3450	3498	3580
30°	3368	3454	3565
35°	3277	3405	3544
40°	3184	3350	3538
45°	3072	3295	3518
50°	2970	3243	3474
55°	2855	3191	3321
60°	2750	3101	3031
65°	2632	2902	2663
70°	2484	2637	2253
75°	2318	2284	1861
80°	2042	1765	1362
85°	1609	855	753



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.5	3.5
10°-20°	363.2	9.9
20°-30°	545.0	14.9
30°-40°	649.7	17.8
40°-50°	669.2	18.3
50°-60°	596.4	16.3
60°-70°	429.8	11.8
70°-80°	224.8	6.2
80°-90°	46.5	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°	1035.6	28.4
0°-40°	1685.3	46.1
0°-60°	2951.0	80.8
0°-90°	3652.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3652.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1349	1349	1349	1349	1349	
5°	1346	1342	1338	1346	1344	128
15°	1281	1282	1282	1295	1294	361
25°	1162	1168	1178	1201	1206	535
35°	998	1011	1037	1071	1079	624
45°	807	825	866	915	924	623
55°	609	628	680	711	708	546
65°	413	428	456	434	418	409
75°	223	234	220	190	179	236
85°	52	46	28	24	24	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1349.1	1349.1	1349.1	1349.1	1349.1
2.5°	1350.7	1347.4	1340.9	1349.1	1349.1
5°	1345.8	1342.5	1337.7	1345.8	1344.2
7.5°	1336.0	1332.8	1327.9	1337.7	1336.0
10°	1321.4	1319.8	1316.5	1326.3	1324.6
12.5°	1305.1	1303.5	1301.9	1311.6	1311.6
15°	1280.7	1282.3	1282.3	1295.3	1293.7
17.5°	1257.9	1259.5	1261.2	1277.4	1277.4
20°	1228.6	1230.3	1236.8	1254.7	1256.3
22.5°	1197.7	1199.3	1207.5	1228.6	1231.9
25°	1161.9	1168.4	1178.2	1201.0	1205.8
27.5°	1126.1	1131.0	1147.3	1173.3	1176.6
30°	1083.8	1093.6	1111.5	1140.8	1147.3
32.5°	1041.5	1052.9	1074.0	1106.6	1114.7
35°	997.5	1010.6	1036.6	1070.8	1078.9
37.5°	952.0	963.4	995.9	1031.7	1043.1
40°	906.4	917.8	953.6	994.3	1007.3
42.5°	857.6	873.9	909.7	955.2	968.3
45°	807.2	825.1	865.7	914.6	924.3
47.5°	755.1	774.6	821.8	870.6	882.0
50°	709.5	727.4	774.6	821.8	829.9
52.5°	660.7	677.0	729.0	768.1	769.7
55°	608.6	628.1	680.2	711.1	707.9
57.5°	561.4	577.7	628.1	644.4	634.7
60°	511.0	525.6	576.1	577.7	563.1
62.5°	462.2	476.8	515.9	504.5	486.6
65°	413.3	428.0	455.7	434.5	418.2
67.5°	366.1	379.2	395.4	367.8	351.5
70°	315.7	333.6	335.2	302.7	286.4
72.5°	271.8	281.5	278.3	247.4	232.7
75°	222.9	234.3	219.7	190.4	179.0
77.5°	177.4	185.5	166.0	138.3	130.2
80°	131.8	136.7	113.9	92.8	87.9
82.5°	89.5	89.5	65.1	50.4	45.6
85°	52.1	45.6	27.7	24.4	24.4
87.5°	17.9	11.4	11.4	11.4	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)