

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: P258756

Luminaire Tested: **14CZ-LD5-39-S-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258756  
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-L93050-W2A1-U-4000K  
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3653.0 lumens  
Efficiency: N/A  
Efficacy: 114.9 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

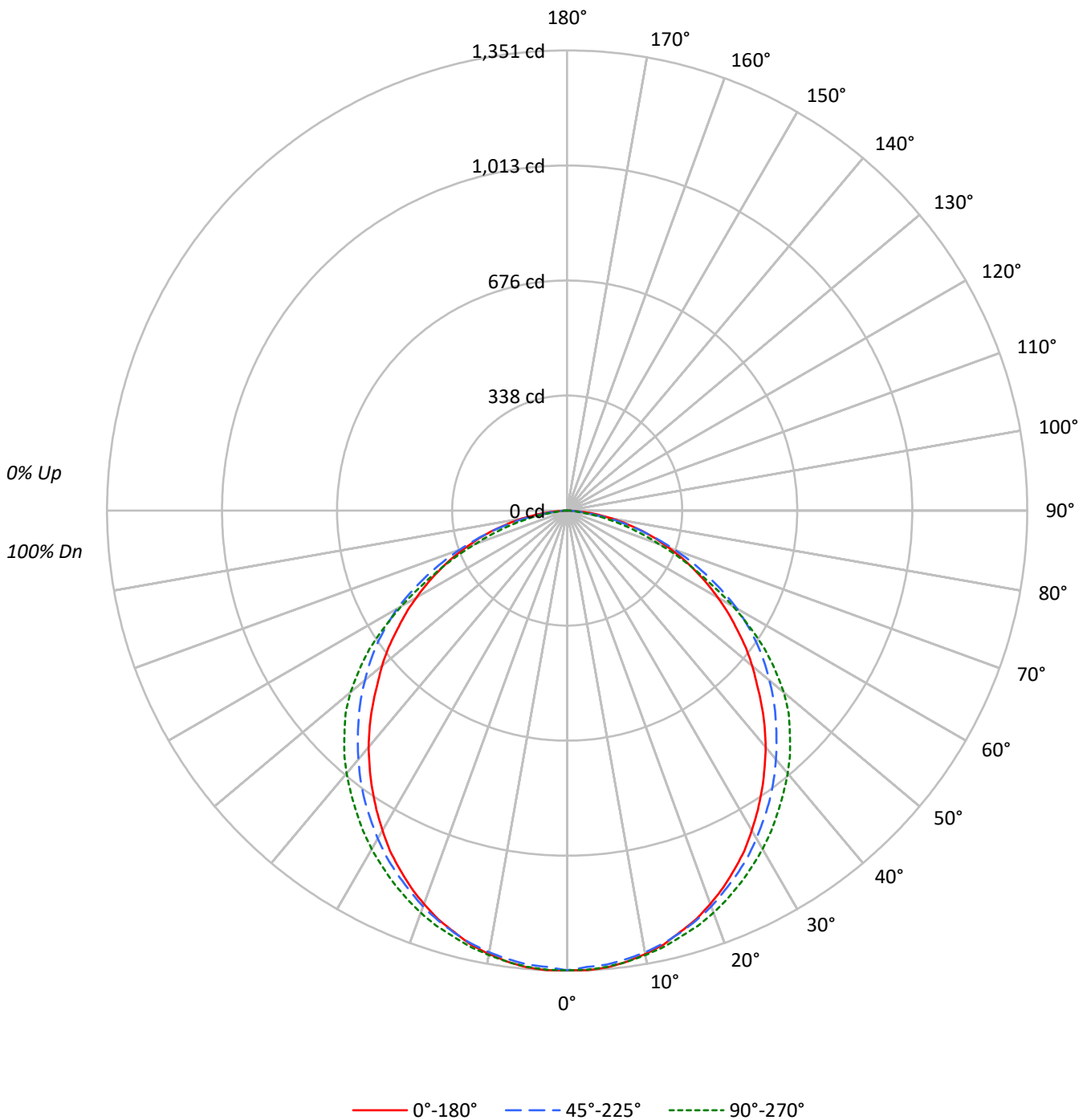
Input Watts (W): 31.806  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3631	3631	3631
5°	3636	3614	3632
10°	3612	3598	3621
15°	3569	3573	3605
20°	3519	3543	3599
25°	3451	3499	3581
30°	3369	3455	3566
35°	3278	3406	3545
40°	3185	3351	3540
45°	3073	3296	3519
50°	2971	3244	3476
55°	2856	3192	3322
60°	2751	3101	3031
65°	2633	2902	2663
70°	2485	2638	2254
75°	2319	2284	1862
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°	363.3	9.9
20°-30°	545.1	14.9
30°-40°	649.9	17.8
40°-50°	669.4	18.3
50°-60°	596.6	16.3
60°-70°	429.9	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°	1035.9	28.4
0°-40°	1685.8	46.1
0°-60°	2951.8	80.8
0°-90°	3653.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3653.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1349	1349	1349	1349	1349	
5°	1346	1343	1338	1346	1344	128
15°	1281	1283	1283	1296	1294	362
25°	1162	1169	1178	1201	1206	535
35°	998	1011	1037	1071	1079	624
45°	807	825	866	915	925	623
55°	609	628	680	711	708	546
65°	414	428	456	435	418	410
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°	1349.4	1349.4	1349.4	1349.4	1349.4
2.5°	1351.0	1347.8	1341.3	1349.4	1349.4
5°	1346.2	1342.9	1338.0	1346.2	1344.5
7.5°	1336.4	1333.1	1328.3	1338.0	1336.4
10°	1321.7	1320.1	1316.9	1326.6	1325.0
12.5°	1305.5	1303.8	1302.2	1312.0	1312.0
15°	1281.1	1282.7	1282.7	1295.7	1294.1
17.5°	1258.3	1259.9	1261.5	1277.8	1277.8
20°	1229.0	1230.6	1237.1	1255.0	1256.6
22.5°	1198.0	1199.7	1207.8	1229.0	1232.2
25°	1162.2	1168.7	1178.5	1201.3	1206.2
27.5°	1126.4	1131.3	1147.6	1173.6	1176.9
30°	1084.1	1093.9	1111.8	1141.1	1147.6
32.5°	1041.8	1053.2	1074.3	1106.9	1115.0
35°	997.8	1010.8	1036.9	1071.1	1079.2
37.5°	952.2	963.6	996.2	1032.0	1043.4
40°	906.7	918.1	953.9	994.6	1007.6
42.5°	857.8	874.1	909.9	955.5	968.5
45°	807.4	825.3	866.0	914.8	924.6
47.5°	755.3	774.8	822.0	870.9	882.3
50°	709.7	727.6	774.8	822.0	830.2
52.5°	660.9	677.2	729.2	768.3	769.9
55°	608.8	628.3	680.4	711.3	708.1
57.5°	561.6	577.9	628.3	644.6	634.8
60°	511.1	525.8	576.2	577.9	563.2
62.5°	462.3	476.9	516.0	504.6	486.7
65°	413.5	428.1	455.8	434.6	418.3
67.5°	366.2	379.3	395.5	367.9	351.6
70°	315.8	333.7	335.3	302.8	286.5
72.5°	271.8	281.6	278.3	247.4	232.8
75°	223.0	234.4	219.7	190.4	179.1
77.5°	177.4	185.6	166.0	138.4	130.2
80°	131.8	136.7	113.9	92.8	87.9
82.5°	89.5	89.5	65.1	50.5	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)