

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: P230894

Luminaire Tested: **14CZ-LD5-29-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230894  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35573)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ-LD5-29-UNV-L940-CD1-U  
Description: CRUZE 1x4 LED TROFFER  
WITH RIBBED LENS  
Light Source: (84) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2575.0 lumens  
Efficiency: N/A  
Efficacy: 105.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

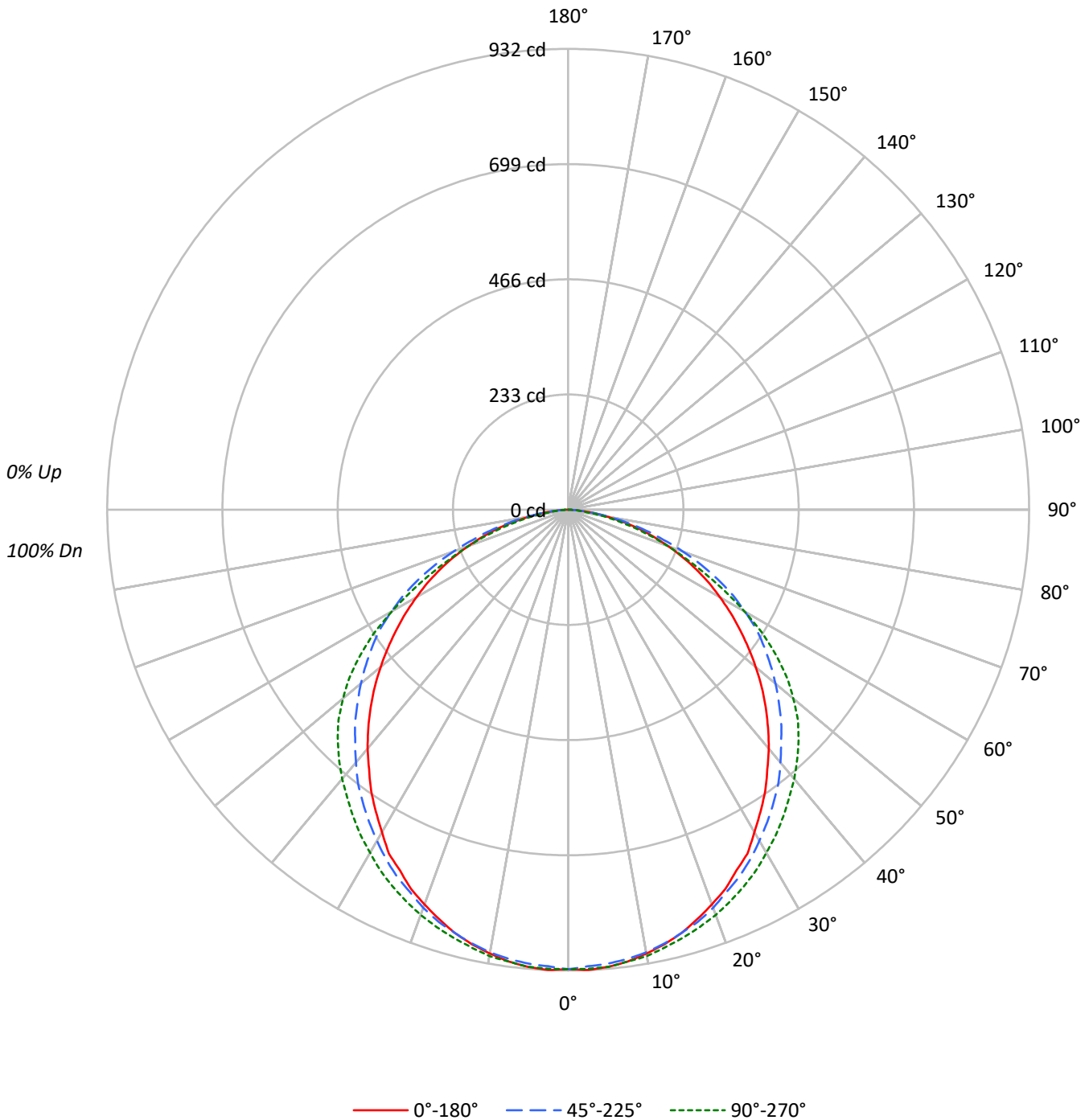
Input Watts (W): 24.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70					70			
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	59					59			
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51					51			
5	76	63	54	48	74	62	54	48	60	53	47	58	52	46	56	51	46	44					44			
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38					38			
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34					34			
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	43	37	32	30					30			
9	57	43	35	30	55	43	35	29	42	34	29	40	34	29	39	33	29	27					27			
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	37	31	26	25					25			

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

	0°	45°	90°
0°	2500	2500	2500
5°	2507	2489	2507
10°	2491	2484	2505
15°	2469	2469	2497
20°	2432	2454	2497
25°	2390	2431	2495
30°	2339	2402	2489
35°	2281	2377	2490
40°	2216	2346	2497
45°	2150	2319	2507
50°	2073	2290	2487
55°	1989	2269	2406
60°	1906	2221	2214
65°	1819	2126	1940
70°	1688	1938	1678
75°	1531	1690	1386
80°	1220	1337	1023
85°	861	744	587



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.9	3.4
10°-20°	251.2	9.8
20°-30°	378.7	14.7
30°-40°	453.9	17.6
40°-50°	471.1	18.3
50°-60°	424.9	16.5
60°-70°	310.0	12.0
70°-80°	162.6	6.3
80°-90°	34.7	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°	717.8	27.9
0°-40°	1171.8	45.5
0°-60°	2067.7	80.3
0°-90°	2575.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2575.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	928	925	922	928	928	88
15°	886	886	886	896	896	250
25°	805	809	819	837	840	371
35°	694	702	724	750	758	434
45°	565	576	609	646	659	435
55°	424	439	484	515	513	380
65°	286	302	334	321	305	282
75°	147	168	162	141	133	154
85°	28	34	24	20	19	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	929.2	929.2	929.2	929.2	929.2
2.5°	931.8	929.2	924.2	929.2	929.2
5°	928.0	925.4	921.6	928.0	928.0
7.5°	921.6	919.1	916.6	922.9	921.6
10°	911.5	910.2	908.9	916.6	916.6
12.5°	900.0	900.0	898.8	907.7	906.4
15°	886.1	886.1	886.1	896.2	896.2
17.5°	868.3	870.8	873.4	884.8	884.8
20°	849.3	851.8	856.9	870.8	872.1
22.5°	830.2	831.5	836.6	853.1	856.9
25°	804.8	808.6	818.8	836.6	840.4
27.5°	784.5	785.8	797.2	817.5	822.6
30°	752.8	761.7	773.1	796.0	801.0
32.5°	723.6	731.2	749.0	773.1	780.7
35°	694.4	702.0	723.6	750.3	757.9
37.5°	661.4	672.8	698.2	724.9	733.7
40°	630.9	641.1	667.7	700.7	710.9
42.5°	597.9	608.1	637.3	674.1	685.5
45°	564.9	576.3	609.3	646.2	658.8
47.5°	530.6	543.3	577.6	618.2	629.7
50°	495.1	509.1	547.1	589.0	594.1
52.5°	459.5	474.8	515.4	552.2	557.3
55°	424.0	439.2	483.7	515.4	512.9
57.5°	389.7	406.2	451.9	468.4	465.9
60°	354.2	372.0	412.6	420.2	411.3
62.5°	321.2	337.7	375.8	369.4	358.0
65°	285.6	302.1	333.9	321.2	304.7
67.5°	250.1	270.4	290.7	269.1	256.4
70°	214.5	237.4	246.3	224.7	213.3
72.5°	180.3	204.4	201.8	180.3	172.6
75°	147.3	167.6	162.5	140.9	133.3
77.5°	111.7	134.6	123.1	105.4	99.0
80°	78.7	99.0	86.3	71.1	66.0
82.5°	52.0	66.0	53.3	41.9	38.1
85°	27.9	34.3	24.1	20.3	19.0
87.5°	11.4	10.2	8.9	8.9	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)