

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: P387434

Luminaire Tested: **14CZ2-29-SQR-UNV-L930-CD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P387434  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1911-580-2)  
Test Lab: INNOVATIONS CENTER(G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-29-SQR-UNV-L930-CD1-U  
Description: 1x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2281.3 lumens  
Efficiency: N/A  
Efficacy: 93.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

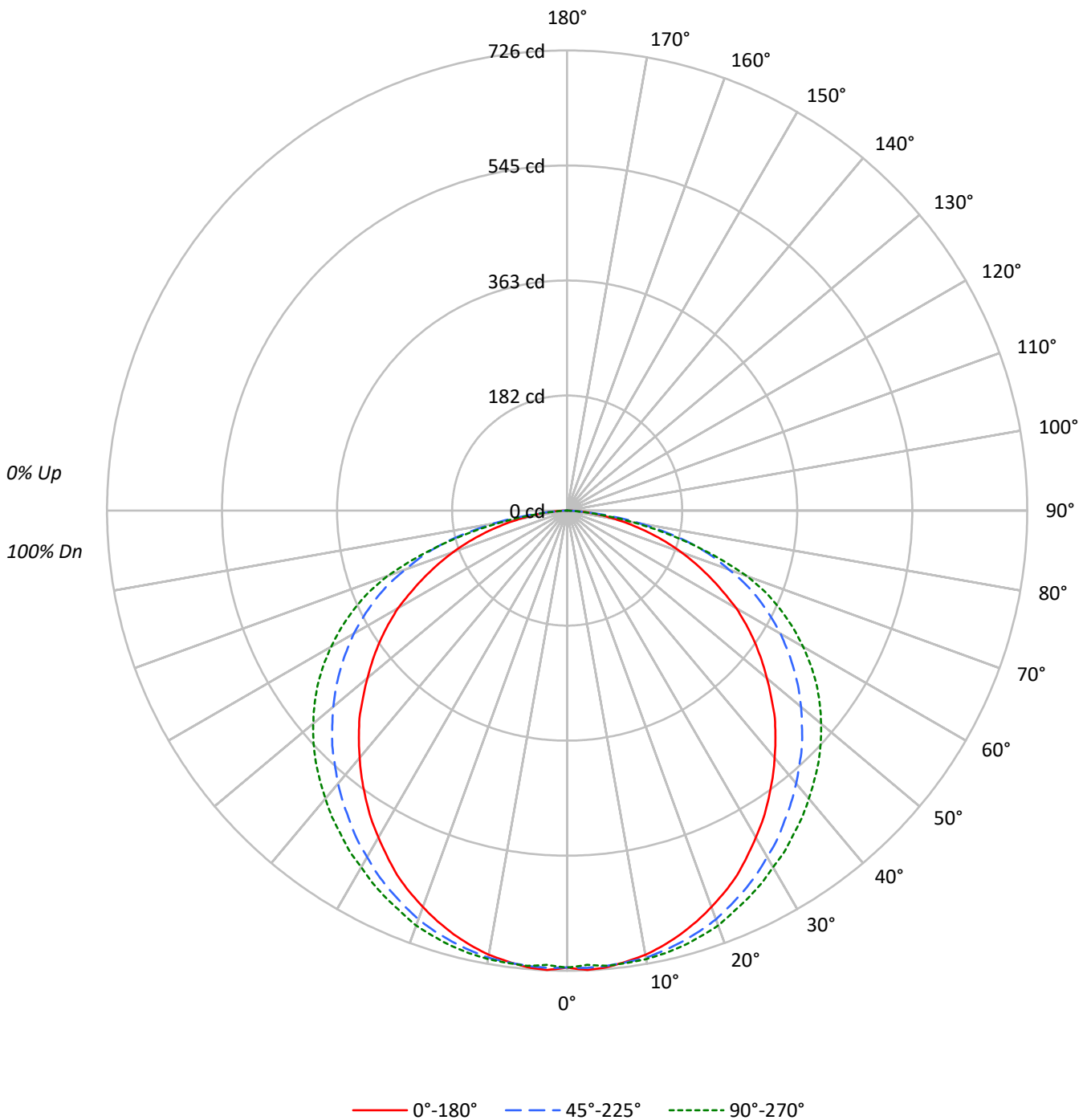
Input Watts (W): 24.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	51	60	54	50	48
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35
7	63	49	40	34	62	49	40	34	47	39	34	46	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

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

	0°	45°	90°
0°	1940	1940	1940
5°	1954	1947	1947
10°	1945	1957	1964
15°	1928	1960	1980
20°	1906	1966	1995
25°	1885	1963	2004
30°	1851	1961	2018
35°	1821	1964	2047
40°	1789	1975	2084
45°	1764	1995	2135
50°	1723	2017	2190
55°	1694	2050	2255
60°	1658	2091	2314
65°	1582	2131	2372
70°	1502	2135	2370
75°	1375	2128	2092
80°	1176	1818	1621
85°	923	1028	602



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.5	3.0
10°-20°	197.9	8.7
20°-30°	302.7	13.3
30°-40°	371.0	16.3
40°-50°	399.0	17.5
50°-60°	383.4	16.8
60°-70°	319.2	14.0
70°-80°	195.9	8.6
80°-90°	43.6	1.9
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°	569.1	24.9
0°-40°	940.1	41.2
0°-60°	1722.5	75.5
0°-90°	2281.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2281.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	721	721	721	721	721	
5°	723	716	721	721	721	69
15°	692	690	704	708	711	195
25°	635	640	661	669	675	292
35°	554	568	598	614	623	347
45°	463	484	524	548	561	357
55°	361	392	437	467	481	322
65°	248	286	335	362	372	246
75°	132	172	205	204	201	140
85°	30	45	33	23	20	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	720.9	720.9	720.9	720.9	720.9
2.5°	725.5	718.6	722.1	720.9	717.5
5°	723.2	716.3	720.9	720.9	720.9
7.5°	717.5	711.7	718.6	719.8	719.8
10°	711.7	707.1	716.3	717.5	718.6
12.5°	702.5	699.1	710.6	712.9	715.2
15°	692.2	689.9	703.7	708.3	710.6
17.5°	679.5	680.7	695.6	701.4	703.7
20°	665.7	669.2	686.4	692.2	696.8
22.5°	650.8	655.4	673.8	680.7	685.3
25°	634.7	640.4	661.1	669.2	674.9
27.5°	615.1	624.3	647.3	657.7	663.4
30°	595.6	605.9	631.2	643.9	649.6
32.5°	576.0	587.5	616.3	628.9	638.1
35°	554.2	568.0	597.9	614.0	623.2
37.5°	532.3	548.4	580.6	599.0	609.4
40°	509.4	526.6	562.2	582.9	593.3
42.5°	486.4	505.9	542.7	565.7	577.2
45°	463.4	484.1	524.3	548.4	561.1
47.5°	436.9	462.2	502.5	530.0	542.7
50°	411.6	439.2	481.8	510.5	523.1
52.5°	386.3	415.1	459.9	489.8	502.5
55°	361.0	392.1	436.9	466.8	480.6
57.5°	334.6	366.8	412.8	443.8	456.5
60°	308.1	341.5	388.6	417.4	430.0
62.5°	277.1	316.2	362.2	390.9	402.4
65°	248.4	286.3	334.6	362.2	372.5
67.5°	219.6	258.7	305.8	331.1	340.3
70°	190.9	230.0	271.3	295.5	301.2
72.5°	162.1	201.2	240.3	254.1	251.8
75°	132.2	172.5	204.7	203.5	201.2
77.5°	103.5	142.6	162.1	154.1	150.6
80°	75.9	113.8	117.3	109.2	104.6
82.5°	51.7	81.6	73.6	64.4	59.8
85°	29.9	44.8	33.3	23.0	19.5
87.5°	12.6	11.5	3.4	3.4	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)