

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: P230536

Luminaire Tested: **22CZ-LD5-24-UNV-L930-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230536  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-LD5-24-UNV-L930-CD1-U  
Description: CRUZE 2x2 LED TROFFER  
WITH RIBBED LENS  
Light Source: (84) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2046.0 lumens  
Efficiency: N/A  
Efficacy: 104.4 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

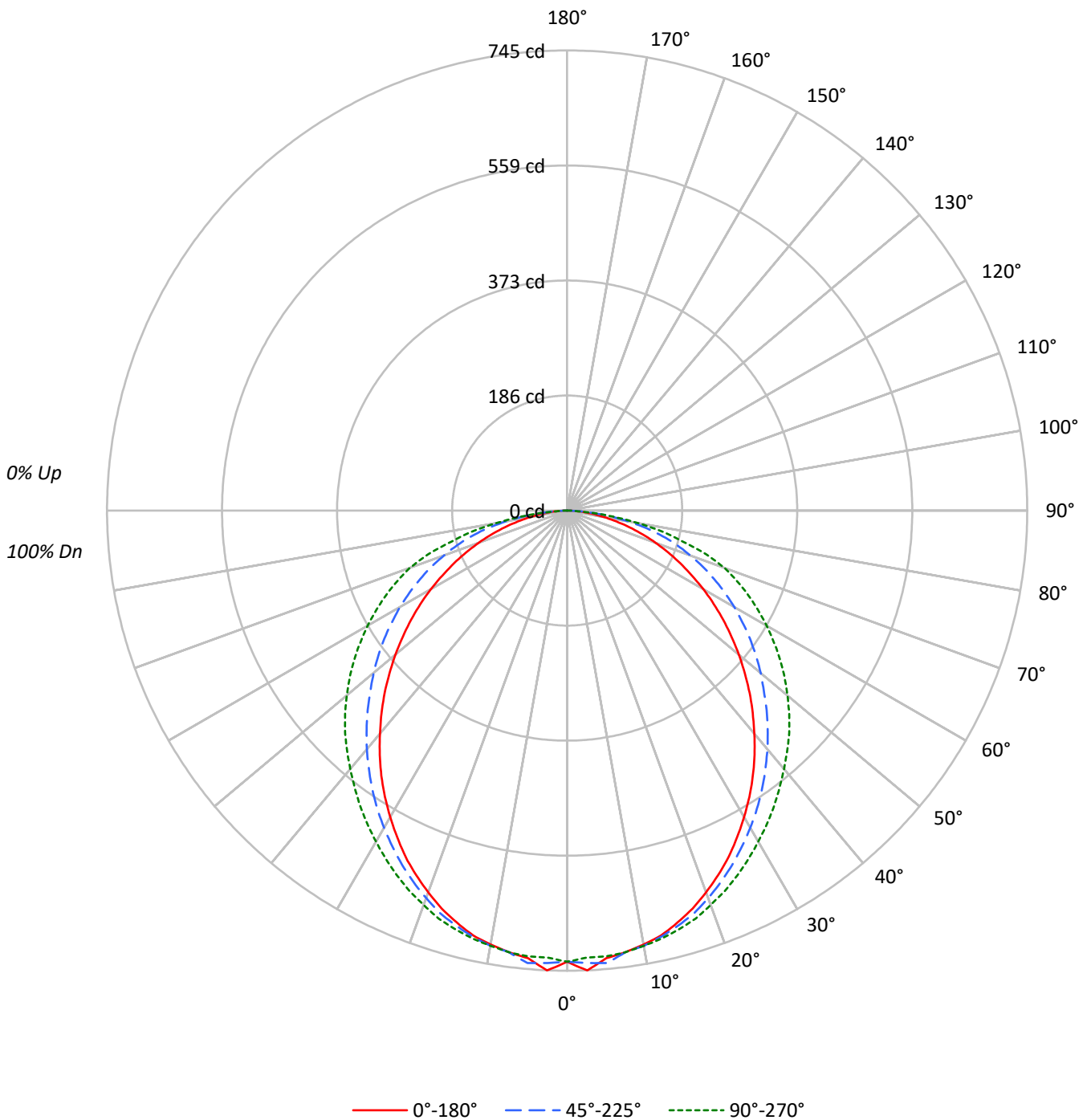
Input Watts (W): 19.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	1965	1965	1965
5°	1965	1986	1957
10°	1949	1955	1955
15°	1924	1938	1954
20°	1883	1912	1946
25°	1838	1879	1935
30°	1781	1843	1923
35°	1722	1807	1918
40°	1657	1772	1919
45°	1590	1738	1935
50°	1521	1712	1949
55°	1447	1695	1975
60°	1371	1681	2008
65°	1286	1673	2059
70°	1197	1667	2129
75°	1087	1666	2017
80°	941	1542	1788
85°	800	1167	1136



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.3	3.4
10°-20°	196.2	9.6
20°-30°	291.9	14.3
30°-40°	345.2	16.9
40°-50°	354.8	17.3
50°-60°	324.2	15.8
60°-70°	259.3	12.7
70°-80°	162.8	8.0
80°-90°	42.4	2.1
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°	557.3	27.2
0°-40°	902.5	44.1
0°-60°	1581.5	77.3
0°-90°	2046.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2046.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	727	727	735	730	724	69
15°	690	692	696	699	701	194
25°	619	623	633	644	652	285
35°	524	531	550	571	584	328
45°	418	429	457	490	508	322
55°	308	323	361	401	421	276
65°	202	220	263	302	323	200
75°	104	124	160	184	194	111
85°	26	33	38	37	37	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	730.3	730.3	730.3	730.3	730.3
2.5°	745.2	742.2	733.3	727.3	724.3
5°	727.3	727.3	735.3	730.3	724.3
7.5°	721.3	721.3	721.3	736.3	721.3
10°	713.4	714.4	715.4	721.3	715.4
12.5°	704.4	704.4	706.4	708.4	709.4
15°	690.5	691.5	695.5	699.4	701.4
17.5°	675.6	678.5	683.5	688.5	692.5
20°	657.7	661.6	667.6	675.6	679.5
22.5°	638.8	642.7	650.7	659.6	666.6
25°	618.9	622.8	632.8	643.7	651.7
27.5°	596.0	600.9	612.9	627.8	635.8
30°	573.1	579.1	593.0	609.9	618.9
32.5°	549.2	556.2	572.1	591.0	601.9
35°	524.3	531.3	550.2	571.1	584.0
37.5°	498.5	506.4	527.3	551.2	565.1
40°	471.6	480.6	504.4	530.3	546.2
42.5°	444.7	454.7	480.6	511.4	527.3
45°	417.9	428.8	456.7	490.5	508.4
47.5°	390.0	403.0	431.8	469.6	487.5
50°	363.2	376.1	408.9	447.7	465.6
52.5°	335.3	350.2	385.0	424.8	443.7
55°	308.4	323.4	361.2	401.0	420.9
57.5°	281.6	296.5	336.3	377.1	397.0
60°	254.7	270.6	312.4	352.2	373.1
62.5°	227.8	244.8	287.5	328.3	348.2
65°	202.0	219.9	262.7	302.5	323.4
67.5°	177.1	196.0	237.8	276.6	297.5
70°	152.2	171.1	211.9	249.7	270.6
72.5°	128.3	147.3	187.0	220.9	236.8
75°	104.5	124.4	160.2	184.1	194.0
77.5°	81.6	101.5	132.3	148.2	159.2
80°	60.7	77.6	99.5	111.4	115.4
82.5°	41.8	55.7	69.6	72.6	74.6
85°	25.9	32.8	37.8	36.8	36.8
87.5°	11.9	12.9	10.9	8.0	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)