

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: P230028

Luminaire Tested: **24CZ-LD5-30-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230028
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-30-S-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2543.0 lumens
Efficiency: N/A
Efficacy: 117.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

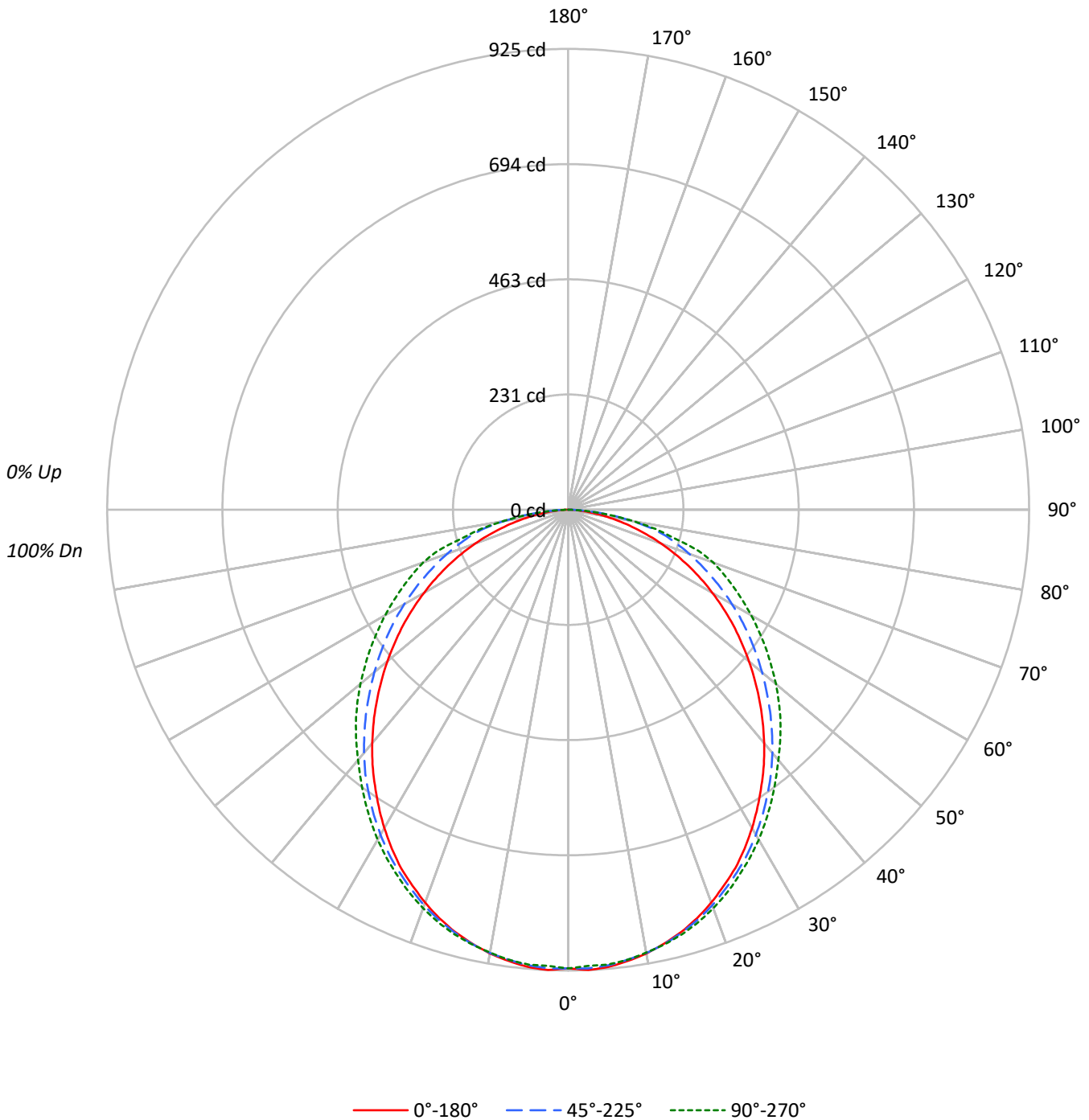
Input Watts (W): 21.62
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1239	1239	1239
5°	1245	1240	1238
10°	1236	1235	1233
15°	1222	1225	1229
20°	1202	1210	1219
25°	1178	1191	1203
30°	1146	1170	1188
35°	1111	1145	1169
40°	1075	1119	1152
45°	1034	1090	1146
50°	992	1063	1139
55°	949	1040	1135
60°	899	1022	1141
65°	846	1010	1164
70°	779	1015	1218
75°	690	1051	1135
80°	577	996	1023
85°	431	797	732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.0	3.4
10°-20°	247.5	9.7
20°-30°	368.9	14.5
30°-40°	434.3	17.1
40°-50°	441.3	17.4
50°-60°	396.8	15.6
60°-70°	313.4	12.3
70°-80°	198.9	7.8
80°-90°	54.9	2.2
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°	703.5	27.7
0°-40°	1137.8	44.7
0°-60°	1975.8	77.7
0°-90°	2543.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2543.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	921	921	921	921	921	
5°	922	914	918	916	916	87
15°	878	873	879	882	882	247
25°	794	793	802	807	811	365
35°	676	680	697	705	712	423
45°	543	551	573	590	602	419
55°	404	415	443	472	484	361
65°	266	279	317	352	366	263
75°	133	156	202	220	218	141
85°	28	48	52	47	47	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	920.6	920.6	920.6	920.6	920.6
2.5°	924.8	918.1	921.5	919.8	916.4
5°	921.5	913.8	918.1	916.4	916.4
7.5°	913.8	907.9	911.3	910.5	911.3
10°	904.5	898.6	903.7	903.7	902.8
12.5°	891.8	886.8	892.7	892.7	893.5
15°	877.5	873.2	879.2	881.7	882.5
17.5°	859.7	855.5	863.1	865.6	868.2
20°	839.4	837.7	845.3	847.8	851.2
22.5°	816.5	816.5	824.2	827.5	832.6
25°	793.7	792.8	802.2	807.2	810.6
27.5°	766.6	767.5	779.3	784.4	788.6
30°	737.8	739.5	753.1	759.0	764.9
32.5°	707.4	710.8	726.0	732.8	738.7
35°	676.1	680.3	697.2	704.8	711.6
37.5°	644.8	650.7	668.5	676.1	683.7
40°	611.8	616.8	637.2	646.5	655.8
42.5°	577.9	584.7	605.0	618.5	629.5
45°	543.2	550.8	572.8	589.8	602.5
47.5°	508.5	518.7	539.8	562.7	573.7
50°	473.8	484.0	507.7	533.1	544.1
52.5°	438.3	448.5	475.5	501.8	513.6
55°	404.5	414.6	443.4	472.2	484.0
57.5°	368.9	379.9	412.1	441.7	453.5
60°	334.2	345.2	379.9	411.2	423.9
62.5°	300.4	312.2	348.6	381.6	394.3
65°	265.7	279.2	317.3	352.0	365.5
67.5°	231.8	247.1	286.8	323.2	337.6
70°	198.0	215.8	258.1	295.3	309.7
72.5°	165.0	184.5	229.3	266.5	274.2
75°	132.8	155.7	202.2	220.0	218.3
77.5°	102.4	127.8	171.8	175.2	180.2
80°	74.5	102.4	128.6	135.4	132.0
82.5°	49.1	77.0	92.2	88.8	88.0
85°	27.9	48.2	51.6	47.4	47.4
87.5°	11.8	19.5	16.9	12.7	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)