

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: P388759

Luminaire Tested: **24CZ2-30VHE-UNV-L950-CD1-SWPD1-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: P388759
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-UNV-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2696.2 lumens
Efficiency: N/A
Efficacy: 132.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

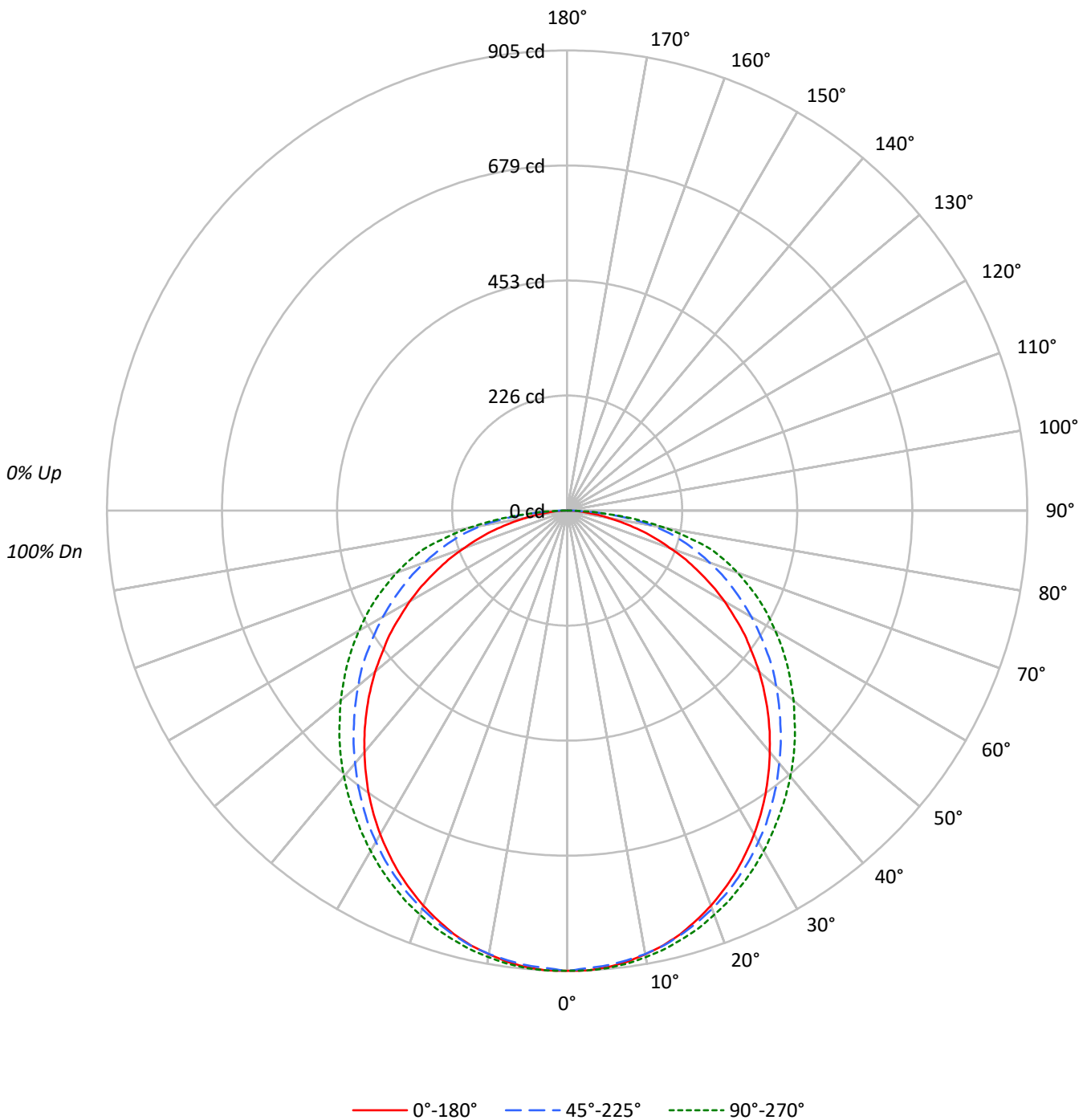
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1218	1218	1218
5°	1218	1213	1220
10°	1211	1210	1218
15°	1201	1203	1216
20°	1184	1193	1211
25°	1165	1182	1206
30°	1142	1169	1201
35°	1117	1154	1197
40°	1089	1140	1200
45°	1062	1128	1205
50°	1032	1123	1217
55°	1000	1121	1239
60°	961	1126	1271
65°	911	1143	1326
70°	846	1172	1402
75°	772	1231	1520
80°	635	1325	1520
85°	486	1223	1306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.6	3.2
10°-20°	244.4	9.1
20°-30°	367.8	13.6
30°-40°	440.8	16.3
40°-50°	459.3	17.0
50°-60°	427.4	15.9
60°-70°	352.0	13.1
70°-80°	239.7	8.9
80°-90°	79.2	2.9
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°	697.9	25.9
0°-40°	1138.7	42.2
0°-60°	2025.4	75.1
0°-90°	2696.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2696.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	902	902	898	902	903	86
15°	862	863	864	872	873	243
25°	785	788	796	810	813	361
35°	680	688	703	722	729	425
45°	558	570	593	623	634	430
55°	426	441	478	516	528	380
65°	286	310	359	401	417	284
75°	148	182	237	279	292	157
85°	32	61	79	85	85	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	905.2	905.2	905.2	905.2	905.2
2.5°	905.2	905.2	900.7	905.2	905.2
5°	901.6	901.6	898.0	902.5	903.4
7.5°	895.3	896.2	892.6	898.0	898.9
10°	886.3	887.2	885.4	890.8	891.7
12.5°	875.5	876.4	876.4	882.7	883.6
15°	862.0	862.9	863.8	871.9	872.8
17.5°	845.0	847.6	849.4	859.3	861.1
20°	827.0	829.7	833.3	844.1	845.9
22.5°	806.3	809.9	816.2	827.9	830.6
25°	784.7	788.3	796.4	809.9	812.6
27.5°	760.4	765.8	775.7	790.1	793.7
30°	735.2	740.6	752.3	767.6	773.0
32.5°	708.2	715.4	728.9	746.0	751.4
35°	680.3	688.4	702.8	721.7	728.9
37.5°	650.6	659.6	676.7	697.4	706.4
40°	620.0	630.8	648.8	673.1	683.0
42.5°	589.4	599.3	621.8	647.9	658.7
45°	557.9	569.6	593.0	622.7	633.5
47.5°	525.5	537.2	565.1	596.6	606.5
50°	493.1	504.8	536.3	569.6	581.3
52.5°	458.0	473.3	509.3	542.6	554.3
55°	426.5	440.9	477.8	515.6	528.2
57.5°	390.5	407.6	448.1	487.7	501.2
60°	357.2	375.2	418.4	458.9	472.4
62.5°	323.0	342.8	388.7	430.1	445.4
65°	286.1	310.4	359.0	401.3	416.6
67.5°	252.9	278.1	329.3	372.5	386.0
70°	215.1	245.7	297.8	341.0	356.3
72.5°	182.7	213.3	268.2	310.4	325.7
75°	148.5	181.8	236.7	279.0	292.4
77.5°	114.3	151.2	206.1	238.5	243.0
80°	81.9	120.6	171.0	189.9	196.2
82.5°	57.6	92.7	126.0	138.6	142.2
85°	31.5	61.2	79.2	84.6	84.6
87.5°	13.5	26.1	31.5	32.4	33.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)