

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: P388753

Luminaire Tested: **24CZ2-30VHE-UNV-L935-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: P388753
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-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2514.2 lumens
Efficiency: N/A
Efficacy: 123.2 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

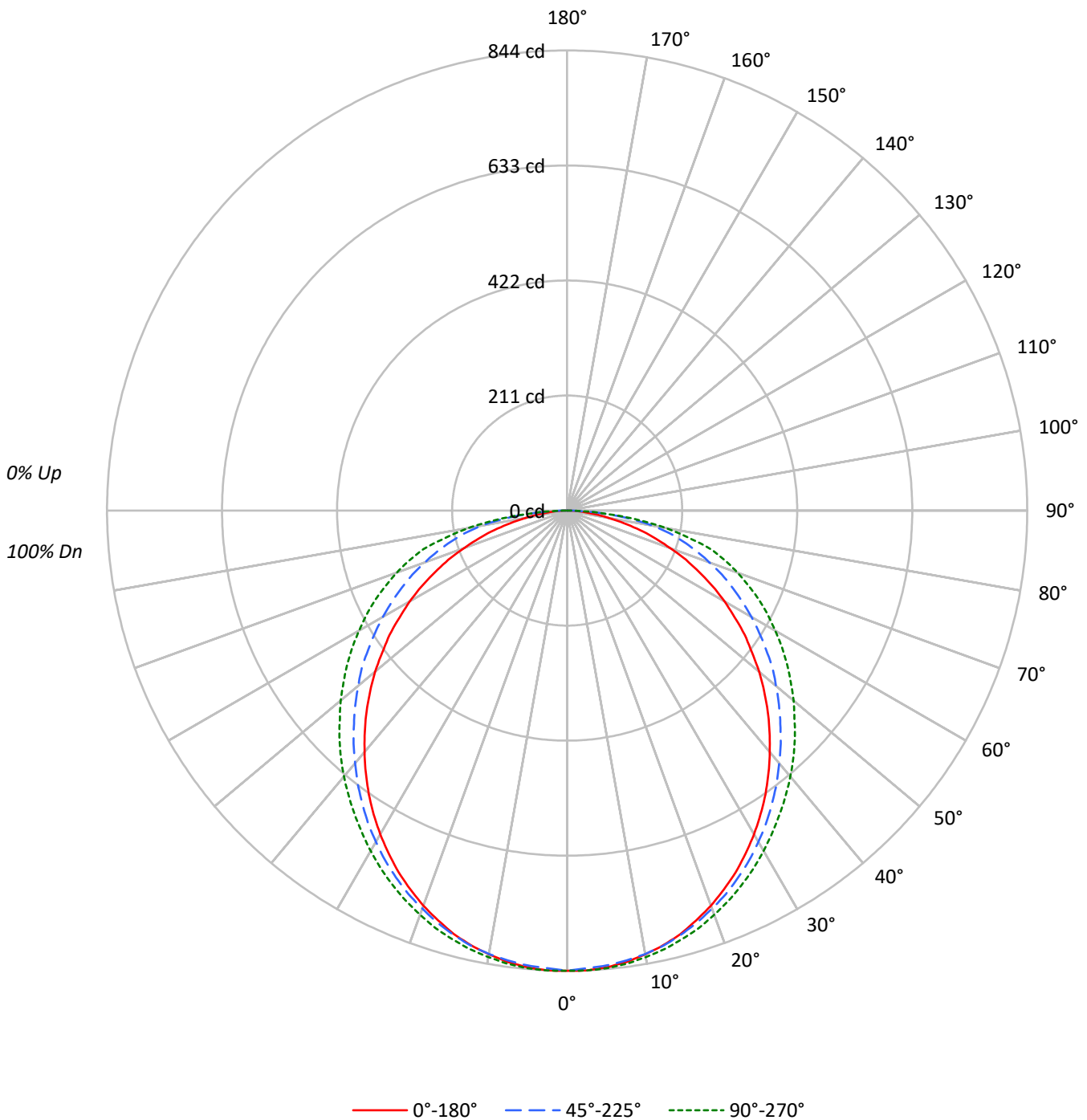
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1136	1136	1136
5°	1136	1131	1138
10°	1129	1128	1136
15°	1120	1122	1134
20°	1104	1113	1129
25°	1086	1102	1125
30°	1065	1090	1120
35°	1042	1076	1116
40°	1015	1063	1119
45°	990	1052	1124
50°	962	1047	1135
55°	933	1045	1156
60°	896	1050	1185
65°	849	1066	1237
70°	789	1092	1307
75°	720	1147	1418
80°	592	1235	1417
85°	454	1139	1218



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.8	3.2
10°-20°	227.9	9.1
20°-30°	343.0	13.6
30°-40°	411.0	16.3
40°-50°	428.3	17.0
50°-60°	398.5	15.9
60°-70°	328.2	13.1
70°-80°	223.6	8.9
80°-90°	73.8	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°	650.7	25.9
0°-40°	1061.8	42.2
0°-60°	1888.6	75.1
0°-90°	2514.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2514.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	844	844	844	844	844	
5°	841	841	837	842	842	80
15°	804	805	806	813	814	226
25°	732	735	743	755	758	337
35°	634	642	655	673	680	397
45°	520	531	553	581	591	401
55°	398	411	446	481	493	355
65°	267	290	335	374	388	265
75°	138	170	221	260	273	146
85°	29	57	74	79	79	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	844.1	844.1	844.1	844.1	844.1
2.5°	844.1	844.1	839.9	844.1	844.1
5°	840.8	840.8	837.4	841.6	842.5
7.5°	834.9	835.7	832.4	837.4	838.3
10°	826.5	827.4	825.7	830.7	831.5
12.5°	816.4	817.3	817.3	823.2	824.0
15°	803.9	804.7	805.5	813.1	813.9
17.5°	787.9	790.4	792.1	801.3	803.0
20°	771.1	773.6	777.0	787.1	788.8
22.5°	751.8	755.2	761.1	772.0	774.5
25°	731.7	735.1	742.6	755.2	757.7
27.5°	709.0	714.1	723.3	736.7	740.1
30°	685.5	690.6	701.5	715.8	720.8
32.5°	660.4	667.1	679.7	695.6	700.6
35°	634.4	641.9	655.3	673.0	679.7
37.5°	606.7	615.1	631.0	650.3	658.7
40°	578.1	588.2	605.0	627.6	636.9
42.5°	549.6	558.8	579.8	604.2	614.2
45°	520.2	531.1	553.0	580.7	590.7
47.5°	490.0	500.9	527.0	556.3	565.6
50°	459.8	470.7	500.1	531.1	542.1
52.5°	427.1	441.4	474.9	506.0	516.9
55°	397.7	411.2	445.6	480.8	492.6
57.5°	364.2	380.1	417.9	454.8	467.4
60°	333.1	349.9	390.2	427.9	440.5
62.5°	301.2	319.7	362.5	401.1	415.4
65°	266.8	289.5	334.8	374.2	388.5
67.5°	235.8	259.3	307.1	347.4	360.0
70°	200.5	229.1	277.7	318.0	332.3
72.5°	170.3	198.9	250.1	289.5	303.8
75°	138.5	169.5	220.7	260.1	272.7
77.5°	106.6	141.0	192.2	222.4	226.6
80°	76.4	112.4	159.4	177.0	182.9
82.5°	53.7	86.4	117.5	129.2	132.6
85°	29.4	57.1	73.8	78.9	78.9
87.5°	12.6	24.3	29.4	30.2	31.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)