

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: P388750

Luminaire Tested: **24CZ2-30VHE-UNV-L930-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: P388750
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-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2453.5 lumens
Efficiency: N/A
Efficacy: 120.3 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

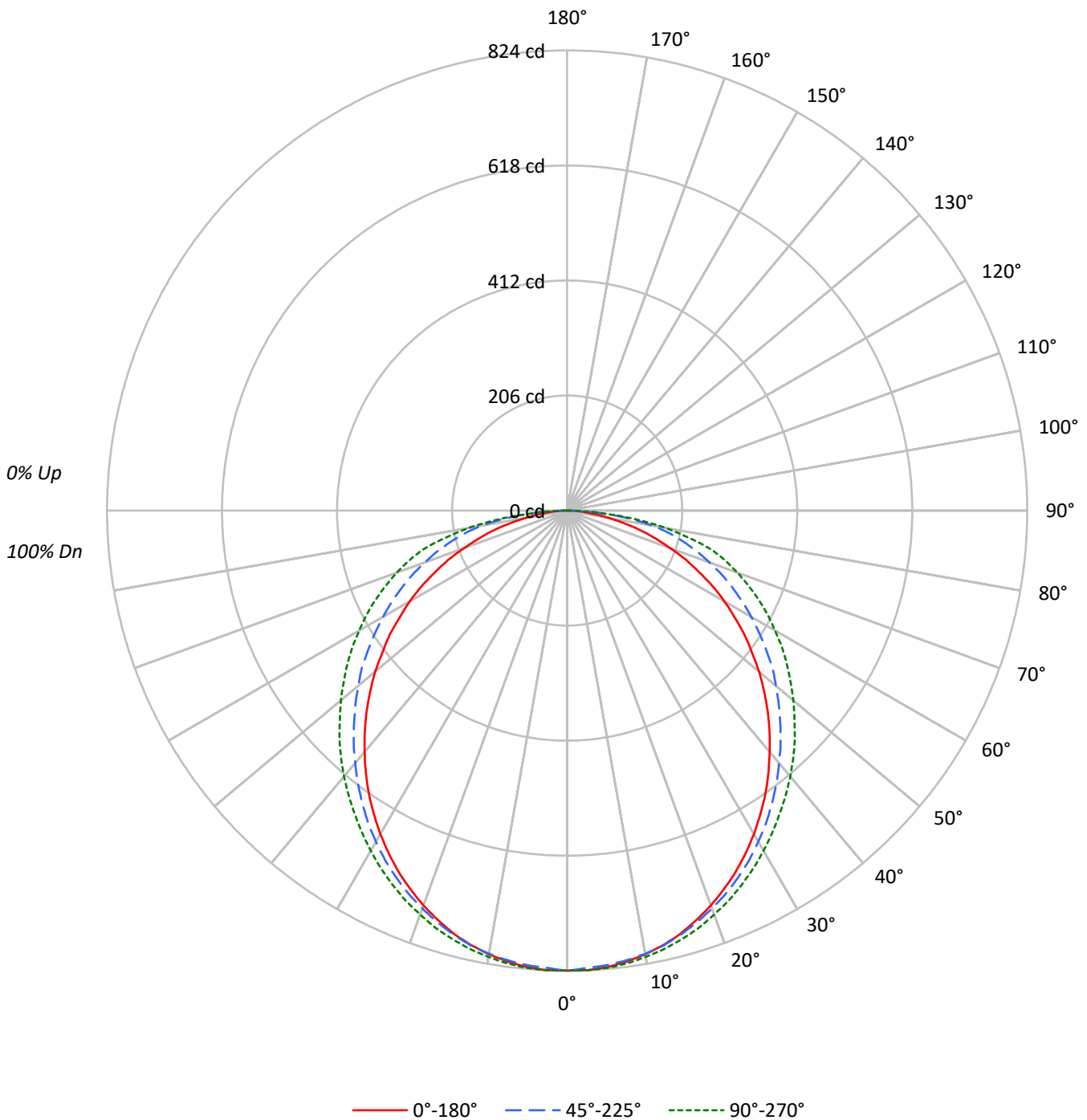
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1108	1108	1108
5°	1108	1104	1110
10°	1102	1101	1109
15°	1093	1095	1106
20°	1077	1086	1102
25°	1060	1076	1098
30°	1039	1064	1093
35°	1017	1050	1089
40°	991	1037	1092
45°	966	1027	1097
50°	939	1021	1107
55°	910	1020	1128
60°	875	1025	1157
65°	829	1040	1207
70°	770	1066	1276
75°	702	1120	1383
80°	577	1206	1383
85°	443	1113	1189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.9	3.2
10°-20°	222.4	9.1
20°-30°	334.7	13.6
30°-40°	401.1	16.3
40°-50°	418.0	17.0
50°-60°	388.9	15.9
60°-70°	320.3	13.1
70°-80°	218.1	8.9
80°-90°	72.0	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°	635.0	25.9
0°-40°	1036.1	42.2
0°-60°	1843.0	75.1
0°-90°	2453.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2453.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	824	824	824	824	824	
5°	820	820	817	821	822	78
15°	784	785	786	794	794	221
25°	714	717	725	737	739	329
35°	619	626	640	657	663	387
45°	508	518	540	567	576	392
55°	388	401	435	469	481	346
65°	260	282	327	365	379	258
75°	135	165	215	254	266	142
85°	29	56	72	77	77	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	823.8	823.8	823.8	823.8	823.8
2.5°	823.8	823.8	819.7	823.8	823.8
5°	820.5	820.5	817.2	821.3	822.1
7.5°	814.7	815.6	812.3	817.2	818.0
10°	806.6	807.4	805.7	810.7	811.5
12.5°	796.7	797.6	797.6	803.3	804.1
15°	784.4	785.3	786.1	793.5	794.3
17.5°	768.9	771.3	773.0	782.0	783.6
20°	752.5	755.0	758.2	768.1	769.7
22.5°	733.7	737.0	742.7	753.3	755.8
25°	714.0	717.3	724.7	737.0	739.4
27.5°	691.9	696.8	705.8	718.9	722.2
30°	669.0	673.9	684.6	698.5	703.4
32.5°	644.4	651.0	663.3	678.8	683.7
35°	619.0	626.4	639.5	656.7	663.3
37.5°	592.0	600.2	615.8	634.6	642.8
40°	564.2	574.0	590.4	612.5	621.5
42.5°	536.3	545.3	565.8	589.6	599.4
45°	507.7	518.3	539.6	566.6	576.5
47.5°	478.2	488.8	514.2	542.9	551.9
50°	448.7	459.4	488.0	518.3	529.0
52.5°	416.8	430.7	463.5	493.8	504.4
55°	388.1	401.2	434.8	469.2	480.7
57.5°	355.4	370.9	407.8	443.8	456.1
60°	325.1	341.5	380.8	417.6	429.9
62.5°	294.0	312.0	353.7	391.4	405.3
65°	260.4	282.5	326.7	365.2	379.1
67.5°	230.1	253.0	299.7	339.0	351.3
70°	195.7	223.5	271.0	310.3	324.3
72.5°	166.2	194.1	244.0	282.5	296.4
75°	135.1	165.4	215.4	253.8	266.1
77.5°	104.0	137.6	187.5	217.0	221.1
80°	74.5	109.7	155.6	172.8	178.5
82.5°	52.4	84.3	114.6	126.1	129.4
85°	28.7	55.7	72.1	77.0	77.0
87.5°	12.3	23.7	28.7	29.5	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)