

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: P391389

Luminaire Tested: **24CZ2-45VHE-RDP-UNV-L930-CD1-SDWPD1-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: P391389
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45VHE-RDP-UNV-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2468.3 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

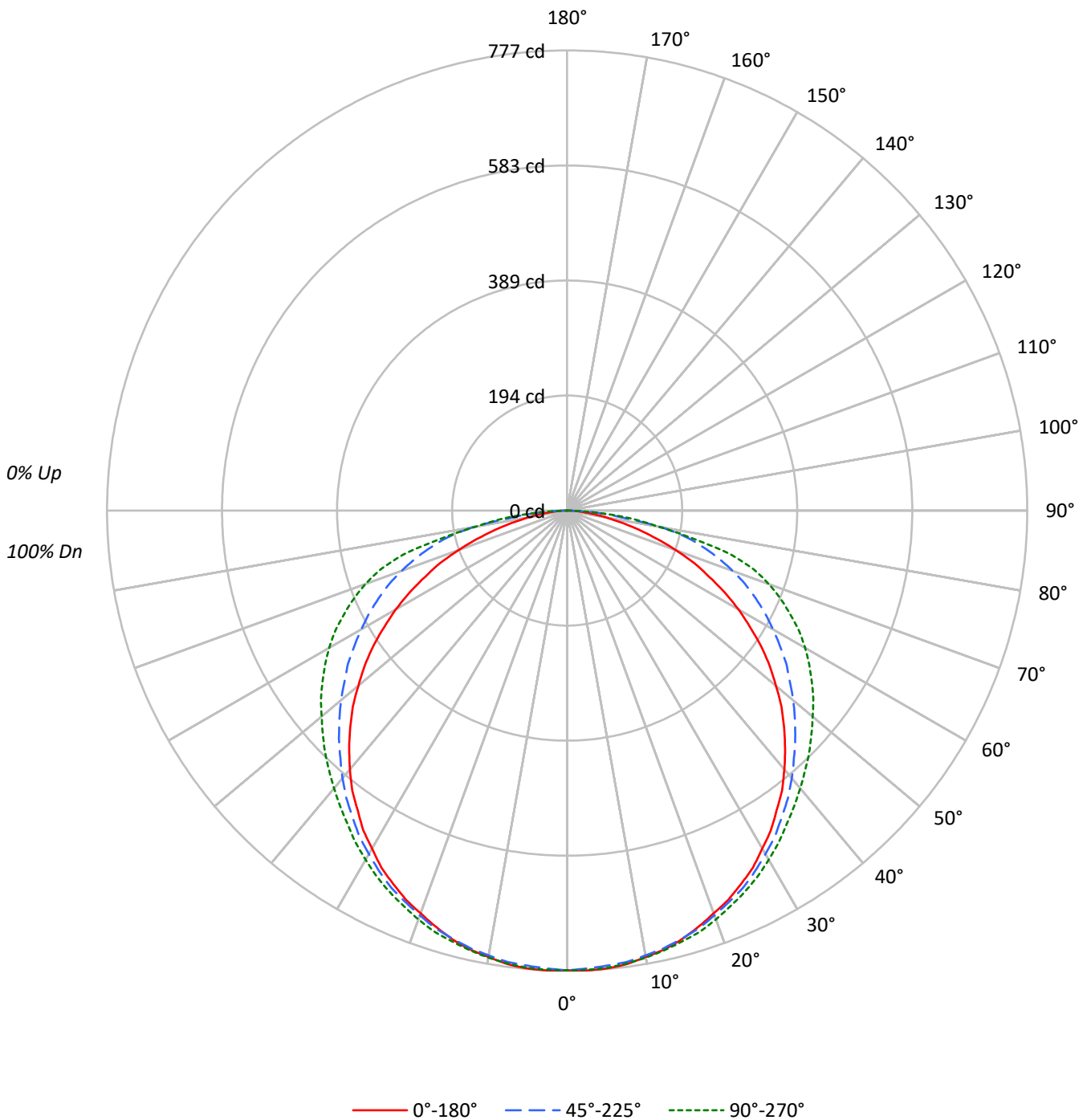
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1044	1044	1044
5°	1048	1042	1047
10°	1045	1042	1047
15°	1044	1042	1049
20°	1036	1041	1052
25°	1032	1043	1054
30°	1023	1040	1058
35°	1014	1038	1062
40°	1002	1036	1075
45°	985	1037	1100
50°	964	1043	1133
55°	939	1060	1183
60°	899	1081	1249
65°	842	1119	1325
70°	766	1170	1426
75°	649	1235	1489
80°	512	1243	1205
85°	378	945	1059



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.6	3.0
10°-20°	211.9	8.6
20°-30°	324.1	13.1
30°-40°	396.1	16.0
40°-50°	422.2	17.1
50°-60°	403.7	16.4
60°-70°	342.0	13.9
70°-80°	229.8	9.3
80°-90°	64.8	2.6
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°	609.6	24.7
0°-40°	1005.7	40.7
0°-60°	1831.7	74.2
0°-90°	2468.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2468.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	776	776	776	776	776	
5°	776	775	771	775	775	74
15°	749	749	748	754	753	211
25°	695	698	703	709	710	321
35°	617	622	632	644	646	387
45°	518	526	545	568	578	399
55°	400	415	452	487	504	357
65°	264	291	351	398	416	263
75°	125	170	238	278	286	134
85°	24	50	61	66	69	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	776.2	776.2	776.2	776.2	776.2
2.5°	777.4	777.4	773.8	776.2	776.2
5°	776.2	775.0	771.3	775.0	775.0
7.5°	772.5	771.3	768.9	772.5	771.3
10°	765.2	765.2	762.7	766.4	766.4
12.5°	759.1	757.8	756.6	761.5	760.3
15°	749.3	749.3	748.1	754.2	752.9
17.5°	737.0	738.3	739.5	744.4	745.6
20°	723.6	726.0	727.2	734.6	734.6
22.5°	711.3	712.5	715.0	722.3	722.3
25°	695.4	697.9	702.8	708.9	710.1
27.5°	679.5	680.7	686.8	695.4	696.6
30°	658.7	662.3	669.7	679.5	680.7
32.5°	640.3	644.0	652.6	662.3	664.8
35°	617.1	621.9	631.7	644.0	646.4
37.5°	596.2	599.9	612.2	625.6	629.3
40°	570.5	577.9	590.1	606.0	612.2
42.5°	544.8	552.2	566.9	587.7	595.0
45°	517.9	526.5	544.8	568.1	577.9
47.5°	490.9	500.7	521.6	548.5	559.5
50°	460.3	472.6	498.3	528.9	541.1
52.5°	431.0	445.6	473.8	508.1	524.0
55°	400.3	415.0	451.8	487.3	504.4
57.5°	366.1	385.7	426.1	466.5	484.8
60°	334.2	352.6	401.6	445.6	464.0
62.5°	300.0	324.4	377.1	423.6	442.0
65°	264.5	291.4	351.4	397.9	416.3
67.5°	232.6	262.0	325.7	372.2	390.6
70°	194.7	231.4	297.5	344.0	362.4
72.5°	159.2	199.6	268.1	313.4	330.6
75°	124.9	170.2	237.5	277.9	286.5
77.5°	93.0	140.8	205.7	222.8	216.7
80°	66.1	112.6	160.4	151.8	155.5
82.5°	42.9	85.7	99.2	112.6	116.3
85°	24.5	50.2	61.2	66.1	68.6
87.5°	11.0	18.4	24.5	24.5	23.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)