

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: P390165

Luminaire Tested: **22CZ2-24VHE-HRP-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: P390165
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24VHE-HRP-UNV-L930-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1709.0 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

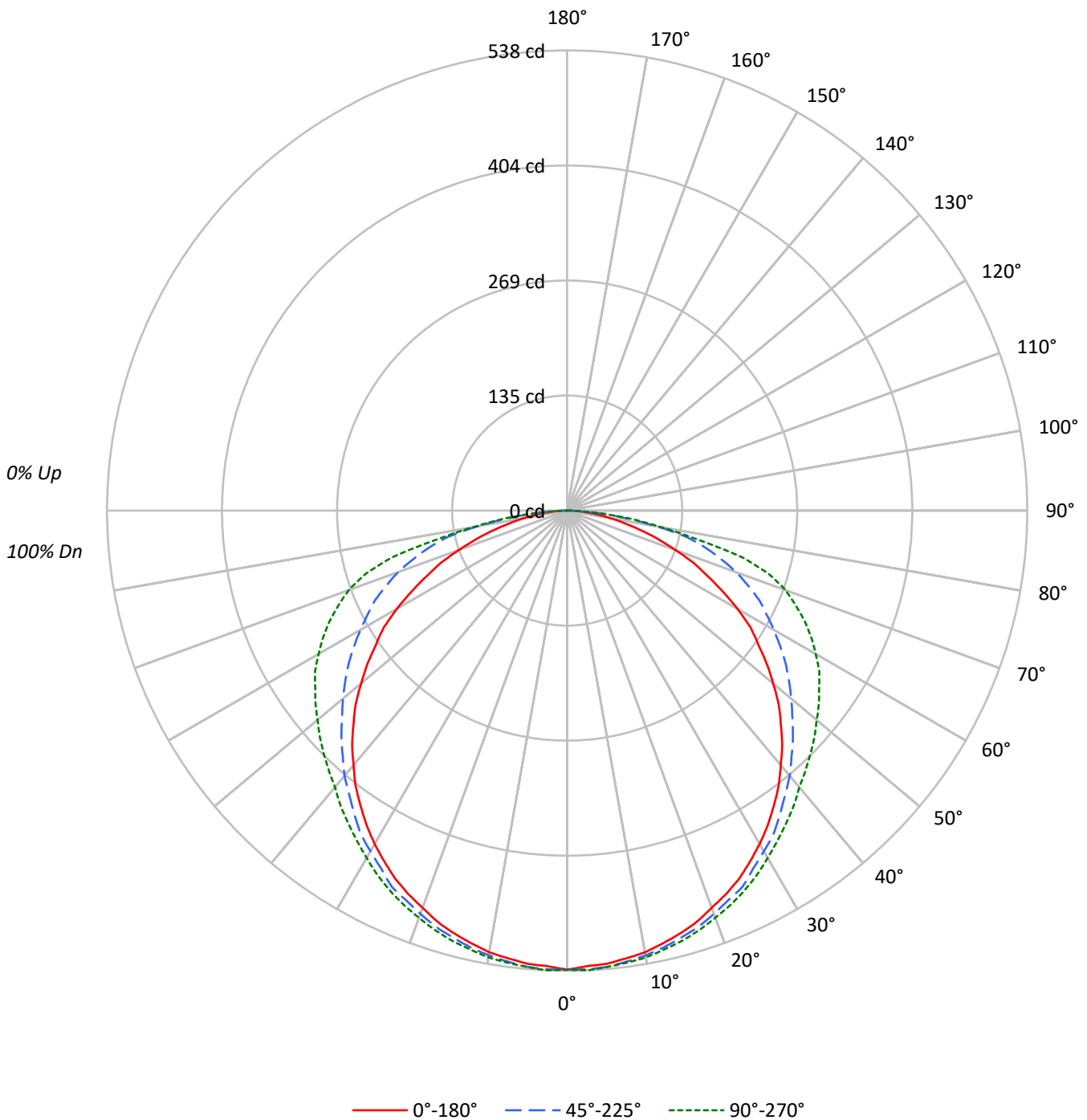
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	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°	1445	1445	1445
5°	1437	1447	1447
10°	1433	1443	1450
15°	1426	1439	1450
20°	1415	1436	1451
25°	1411	1441	1456
30°	1399	1430	1457
35°	1384	1425	1466
40°	1365	1422	1484
45°	1345	1421	1531
50°	1316	1432	1595
55°	1280	1463	1687
60°	1238	1502	1807
65°	1152	1577	1954
70°	1058	1652	2137
75°	928	1738	2209
80°	798	1657	1734
85°	698	1204	1318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	3.0
10°-20°	145.8	8.5
20°-30°	222.4	13.0
30°-40°	271.6	15.9
40°-50°	290.4	17.0
50°-60°	280.3	16.4
60°-70°	241.3	14.1
70°-80°	163.3	9.6
80°-90°	43.1	2.5
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°	419.0	24.5
0°-40°	690.6	40.4
0°-60°	1261.4	73.8
0°-90°	1709.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1709.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	537	537	537	537	537	
5°	532	533	536	536	536	51
15°	512	513	517	519	520	144
25°	475	478	485	488	490	219
35°	421	425	434	442	446	264
45°	353	360	373	392	402	273
55°	273	282	312	343	360	244
65°	181	199	248	287	307	180
75°	89	118	167	201	212	96
85°	23	31	39	40	43	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	536.8	536.8	536.8	536.8	536.8
2.5°	533.1	534.3	536.8	536.8	538.1
5°	531.8	533.1	535.6	535.6	535.6
7.5°	528.0	529.3	531.8	533.1	533.1
10°	524.3	525.5	528.0	529.3	530.5
12.5°	518.0	519.2	523.0	525.5	525.5
15°	511.7	512.9	516.7	519.2	520.5
17.5°	504.1	506.7	510.4	512.9	514.2
20°	494.1	496.6	501.6	505.4	506.7
22.5°	485.3	487.8	492.8	496.6	499.1
25°	475.2	477.7	485.3	487.8	490.3
27.5°	462.7	465.2	471.5	476.5	480.3
30°	450.1	452.6	460.1	466.4	468.9
32.5°	436.3	440.0	448.8	453.9	457.6
35°	421.2	424.9	433.7	442.5	446.3
37.5°	406.1	409.8	418.6	430.0	435.0
40°	388.5	393.5	404.8	419.9	422.4
42.5°	372.1	378.4	388.5	406.1	412.4
45°	353.3	359.6	373.4	392.2	402.3
47.5°	335.7	342.0	357.0	379.7	392.2
50°	314.3	323.1	342.0	368.4	380.9
52.5°	294.2	301.7	326.9	355.8	370.9
55°	272.8	281.6	311.8	343.2	359.6
57.5°	254.0	261.5	295.4	330.6	349.5
60°	230.1	240.1	279.1	316.8	335.7
62.5°	204.9	220.0	262.8	301.7	321.8
65°	181.0	198.6	247.7	286.6	306.8
67.5°	159.7	178.5	228.8	270.3	289.2
70°	134.5	158.4	210.0	250.2	271.6
72.5°	111.9	138.3	188.6	228.8	247.7
75°	89.3	118.2	167.2	201.2	212.5
77.5°	69.1	96.8	143.3	153.4	154.6
80°	51.5	76.7	106.9	108.1	111.9
82.5°	35.2	54.1	69.1	75.4	76.7
85°	22.6	31.4	39.0	40.2	42.7
87.5°	10.1	11.3	13.8	12.6	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)