

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: P390172

Luminaire Tested: **22CZ2-24VHE-HRP-UNV-L940-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: P390172
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-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1791.0 lumens
Efficiency: N/A
Efficacy: 102.3 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

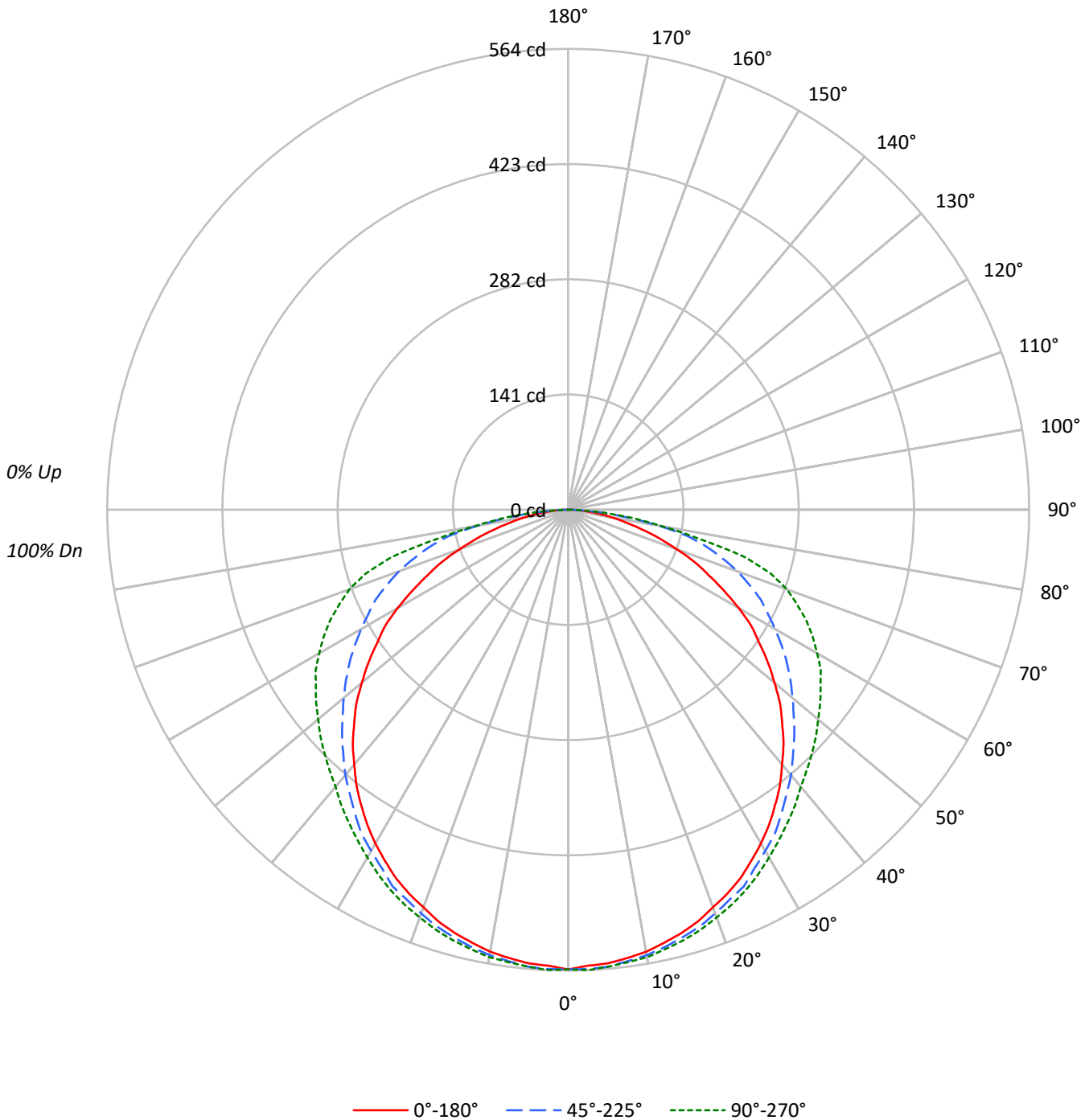
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1514	1514	1514
5°	1505	1516	1516
10°	1501	1512	1519
15°	1494	1509	1520
20°	1483	1505	1521
25°	1479	1510	1526
30°	1466	1498	1527
35°	1450	1493	1536
40°	1430	1490	1555
45°	1409	1489	1604
50°	1379	1500	1671
55°	1341	1533	1768
60°	1298	1574	1893
65°	1208	1653	2047
70°	1109	1731	2239
75°	972	1822	2315
80°	837	1736	1818
85°	732	1260	1383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.2	3.0
10°-20°	152.8	8.5
20°-30°	233.1	13.0
30°-40°	284.6	15.9
40°-50°	304.4	17.0
50°-60°	293.8	16.4
60°-70°	252.9	14.1
70°-80°	171.1	9.6
80°-90°	45.2	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°	439.1	24.5
0°-40°	723.8	40.4
0°-60°	1321.9	73.8
0°-90°	1791.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1791.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	563	563	563	563	563	
5°	557	559	561	561	561	53
15°	536	538	542	544	546	151
25°	498	501	509	511	514	229
35°	441	445	454	464	468	276
45°	370	377	391	411	422	286
55°	286	295	327	360	377	256
65°	190	208	260	300	322	189
75°	94	124	175	211	223	100
85°	24	33	41	42	45	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	562.6	562.6	562.6	562.6	562.6
2.5°	558.6	559.9	562.6	562.6	563.9
5°	557.3	558.6	561.3	561.3	561.3
7.5°	553.4	554.7	557.3	558.6	558.6
10°	549.4	550.7	553.4	554.7	556.0
12.5°	542.8	544.1	548.1	550.7	550.7
15°	536.2	537.6	541.5	544.1	545.5
17.5°	528.3	531.0	534.9	537.6	538.9
20°	517.8	520.4	525.7	529.6	531.0
22.5°	508.6	511.2	516.5	520.4	523.1
25°	498.0	500.7	508.6	511.2	513.8
27.5°	484.9	487.5	494.1	499.3	503.3
30°	471.7	474.3	482.2	488.8	491.4
32.5°	457.2	461.1	470.4	475.6	479.6
35°	441.4	445.3	454.5	463.8	467.7
37.5°	425.6	429.5	438.7	450.6	455.9
40°	407.1	412.4	424.2	440.1	442.7
42.5°	390.0	396.6	407.1	425.6	432.1
45°	370.2	376.8	391.3	411.1	421.6
47.5°	351.8	358.4	374.2	397.9	411.1
50°	329.4	338.6	358.4	386.0	399.2
52.5°	308.3	316.2	342.6	372.9	388.7
55°	285.9	295.1	326.7	359.7	376.8
57.5°	266.1	274.0	309.6	346.5	366.3
60°	241.1	251.6	292.5	332.0	351.8
62.5°	214.8	230.6	275.4	316.2	337.3
65°	189.7	208.2	259.6	300.4	321.5
67.5°	167.3	187.1	239.8	283.3	303.0
70°	141.0	166.0	220.0	262.2	284.6
72.5°	117.3	144.9	197.6	239.8	259.6
75°	93.5	123.8	175.2	210.8	222.7
77.5°	72.5	101.4	150.2	160.7	162.1
80°	54.0	80.4	112.0	113.3	117.3
82.5°	36.9	56.7	72.5	79.1	80.4
85°	23.7	32.9	40.8	42.2	44.8
87.5°	10.5	11.9	14.5	13.2	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)