

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: P390218

Luminaire Tested: **22CZ2-29VHE-HRP-UNV-L935-CD1-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: P390218
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: 22CZ2-29VHE-HRP-UNV-L935-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2234.8 lumens
Efficiency: N/A
Efficacy: 103.0 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

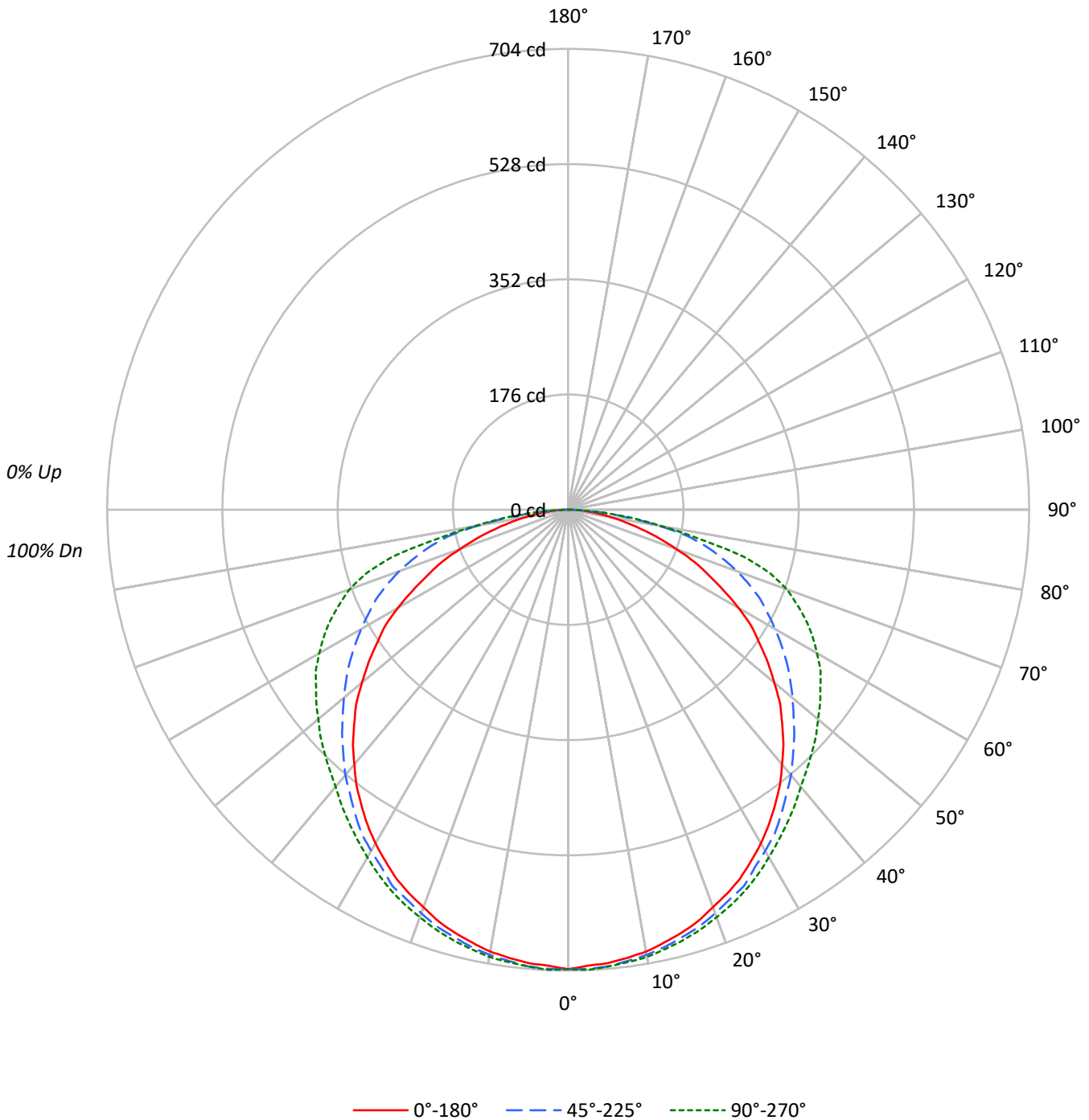
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1889	1889	1889
5°	1878	1892	1892
10°	1873	1887	1896
15°	1864	1882	1896
20°	1850	1879	1897
25°	1845	1884	1904
30°	1829	1870	1905
35°	1809	1863	1917
40°	1785	1860	1940
45°	1758	1858	2002
50°	1721	1872	2085
55°	1673	1913	2206
60°	1619	1964	2362
65°	1507	2062	2554
70°	1384	2160	2794
75°	1213	2274	2888
80°	1044	2165	2267
85°	914	1575	1726



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	3.0
10°-20°	190.7	8.5
20°-30°	290.9	13.0
30°-40°	355.2	15.9
40°-50°	379.8	17.0
50°-60°	366.6	16.4
60°-70°	315.5	14.1
70°-80°	213.5	9.6
80°-90°	56.3	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°	547.9	24.5
0°-40°	903.1	40.4
0°-60°	1649.4	73.8
0°-90°	2234.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2234.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	695	697	700	700	700	66
15°	669	671	676	679	681	189
25°	621	625	635	638	641	286
35°	551	556	567	579	584	345
45°	462	470	488	513	526	357
55°	357	368	408	449	470	320
65°	237	260	324	375	401	235
75°	117	154	219	263	278	125
85°	30	41	51	53	56	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	702.0	702.0	702.0	702.0	702.0
2.5°	697.1	698.7	702.0	702.0	703.6
5°	695.4	697.1	700.3	700.3	700.3
7.5°	690.5	692.1	695.4	697.1	697.1
10°	685.5	687.2	690.5	692.1	693.8
12.5°	677.3	679.0	683.9	687.2	687.2
15°	669.1	670.8	675.7	679.0	680.6
17.5°	659.2	662.5	667.5	670.8	672.4
20°	646.1	649.4	656.0	660.9	662.5
22.5°	634.6	637.9	644.4	649.4	652.7
25°	621.4	624.7	634.6	637.9	641.2
27.5°	605.0	608.3	616.5	623.1	628.0
30°	588.6	591.8	601.7	609.9	613.2
32.5°	570.5	575.4	586.9	593.5	598.4
35°	550.7	555.7	567.2	578.7	583.6
37.5°	531.0	535.9	547.5	562.2	568.8
40°	508.0	514.6	529.4	549.1	552.4
42.5°	486.6	494.8	508.0	531.0	539.2
45°	462.0	470.2	488.3	512.9	526.1
47.5°	438.9	447.2	466.9	496.5	512.9
50°	411.0	422.5	447.2	481.7	498.1
52.5°	384.7	394.6	427.4	465.3	485.0
55°	356.7	368.3	407.7	448.8	470.2
57.5°	332.1	342.0	386.3	432.4	457.0
60°	300.9	314.0	365.0	414.3	438.9
62.5°	268.0	287.7	343.6	394.6	420.9
65°	236.7	259.8	323.9	374.8	401.1
67.5°	208.8	233.4	299.2	353.5	378.1
70°	175.9	207.1	274.5	327.2	355.1
72.5°	146.3	180.8	246.6	299.2	323.9
75°	116.7	154.5	218.7	263.0	277.8
77.5°	90.4	126.6	187.4	200.6	202.2
80°	67.4	100.3	139.7	141.4	146.3
82.5°	46.0	70.7	90.4	98.6	100.3
85°	29.6	41.1	51.0	52.6	55.9
87.5°	13.2	14.8	18.1	16.4	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)