

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: P390214

Luminaire Tested: **22CZ2-29VHE-HRP-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: P390214
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-L930-CD1-SWPD1-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: 2153.8 lumens
Efficiency: N/A
Efficacy: 99.3 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

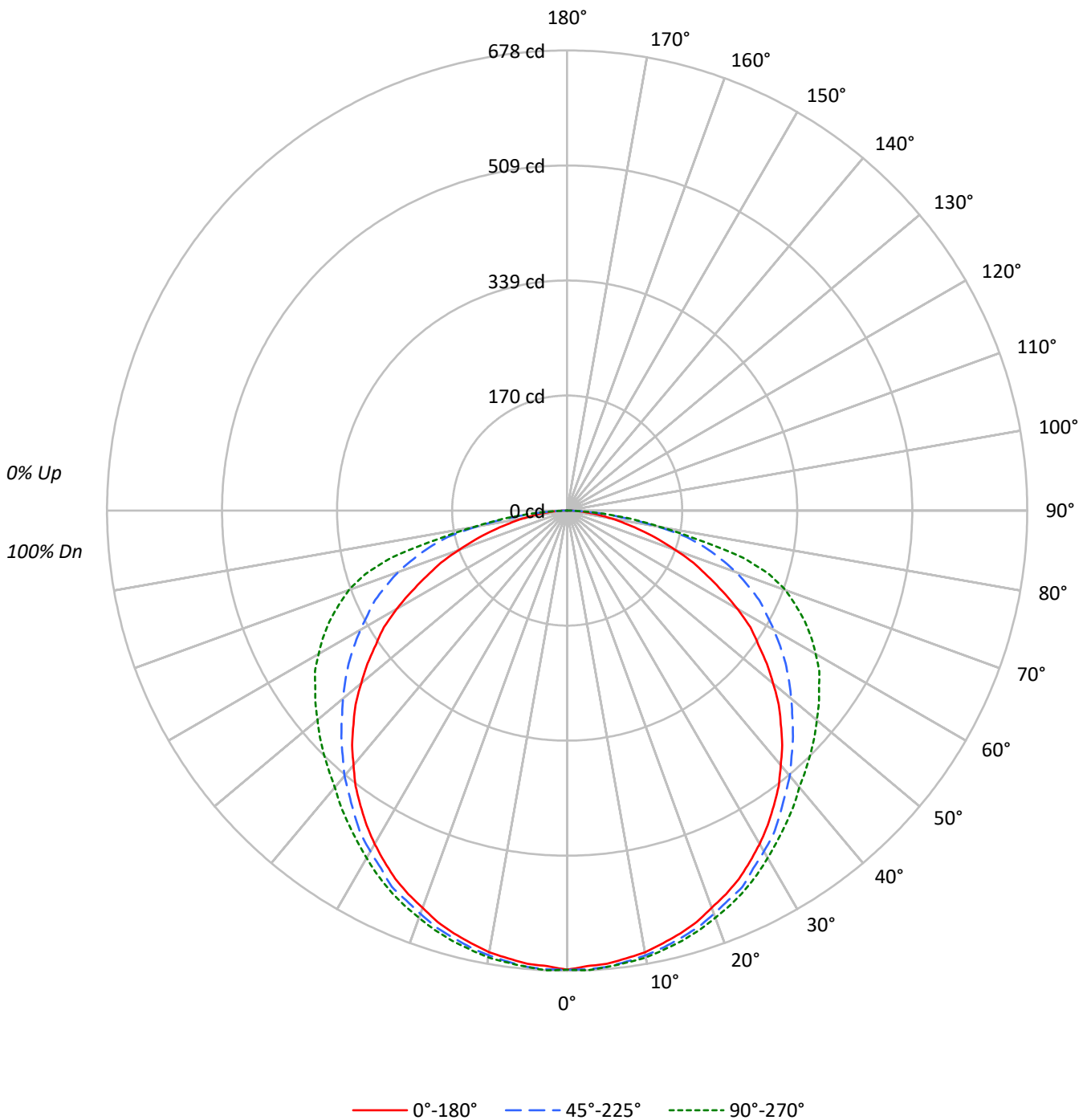
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1820	1820	1820
5°	1810	1823	1823
10°	1805	1818	1827
15°	1797	1814	1827
20°	1783	1810	1828
25°	1778	1816	1835
30°	1762	1802	1836
35°	1744	1796	1848
40°	1720	1792	1870
45°	1694	1791	1929
50°	1658	1804	2010
55°	1613	1843	2126
60°	1560	1893	2277
65°	1453	1987	2462
70°	1334	2082	2692
75°	1170	2191	2784
80°	1007	2087	2185
85°	880	1516	1664



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	3.0
10°-20°	183.7	8.5
20°-30°	280.3	13.0
30°-40°	342.3	15.9
40°-50°	366.0	17.0
50°-60°	353.3	16.4
60°-70°	304.1	14.1
70°-80°	205.7	9.6
80°-90°	54.3	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°	528.1	24.5
0°-40°	870.4	40.4
0°-60°	1589.6	73.8
0°-90°	2153.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2153.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	676	676	676	676	676	
5°	670	672	675	675	675	64
15°	645	646	651	654	656	182
25°	599	602	612	615	618	276
35°	531	536	547	558	562	332
45°	445	453	471	494	507	344
55°	344	355	393	432	453	308
65°	228	250	312	361	387	227
75°	112	149	211	254	268	121
85°	28	40	49	51	54	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	676.5	676.5	676.5	676.5	676.5
2.5°	671.8	673.4	676.5	676.5	678.1
5°	670.2	671.8	675.0	675.0	675.0
7.5°	665.5	667.0	670.2	671.8	671.8
10°	660.7	662.3	665.5	667.0	668.6
12.5°	652.8	654.4	659.1	662.3	662.3
15°	644.9	646.4	651.2	654.4	655.9
17.5°	635.4	638.5	643.3	646.4	648.0
20°	622.7	625.8	632.2	636.9	638.5
22.5°	611.6	614.8	621.1	625.8	629.0
25°	598.9	602.1	611.6	614.8	617.9
27.5°	583.1	586.2	594.2	600.5	605.2
30°	567.2	570.4	579.9	587.8	591.0
32.5°	549.8	554.5	565.6	572.0	576.7
35°	530.8	535.5	546.6	557.7	562.5
37.5°	511.8	516.5	527.6	541.9	548.2
40°	489.6	495.9	510.2	529.2	532.4
42.5°	469.0	476.9	489.6	511.8	519.7
45°	445.2	453.1	470.6	494.3	507.0
47.5°	423.0	431.0	450.0	478.5	494.3
50°	396.1	407.2	431.0	464.2	480.1
52.5°	370.8	380.3	411.9	448.4	467.4
55°	343.8	354.9	392.9	432.5	453.1
57.5°	320.1	329.6	372.3	416.7	440.5
60°	289.9	302.6	351.7	399.3	423.0
62.5°	258.3	277.3	331.1	380.3	405.6
65°	228.2	250.3	312.1	361.2	386.6
67.5°	201.2	225.0	288.4	340.6	364.4
70°	169.5	199.6	264.6	315.3	342.2
72.5°	141.0	174.3	237.7	288.4	312.1
75°	112.5	148.9	210.7	253.5	267.8
77.5°	87.1	122.0	180.6	193.3	194.9
80°	65.0	96.6	134.7	136.3	141.0
82.5°	44.4	68.1	87.1	95.1	96.6
85°	28.5	39.6	49.1	50.7	53.9
87.5°	12.7	14.3	17.4	15.8	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)