

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: P390217

Luminaire Tested: **22CZ2-29VHE-HRP-UNV-L935-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: P390217
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-SWPD1-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: 2207.1 lumens
Efficiency: N/A
Efficacy: 101.7 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

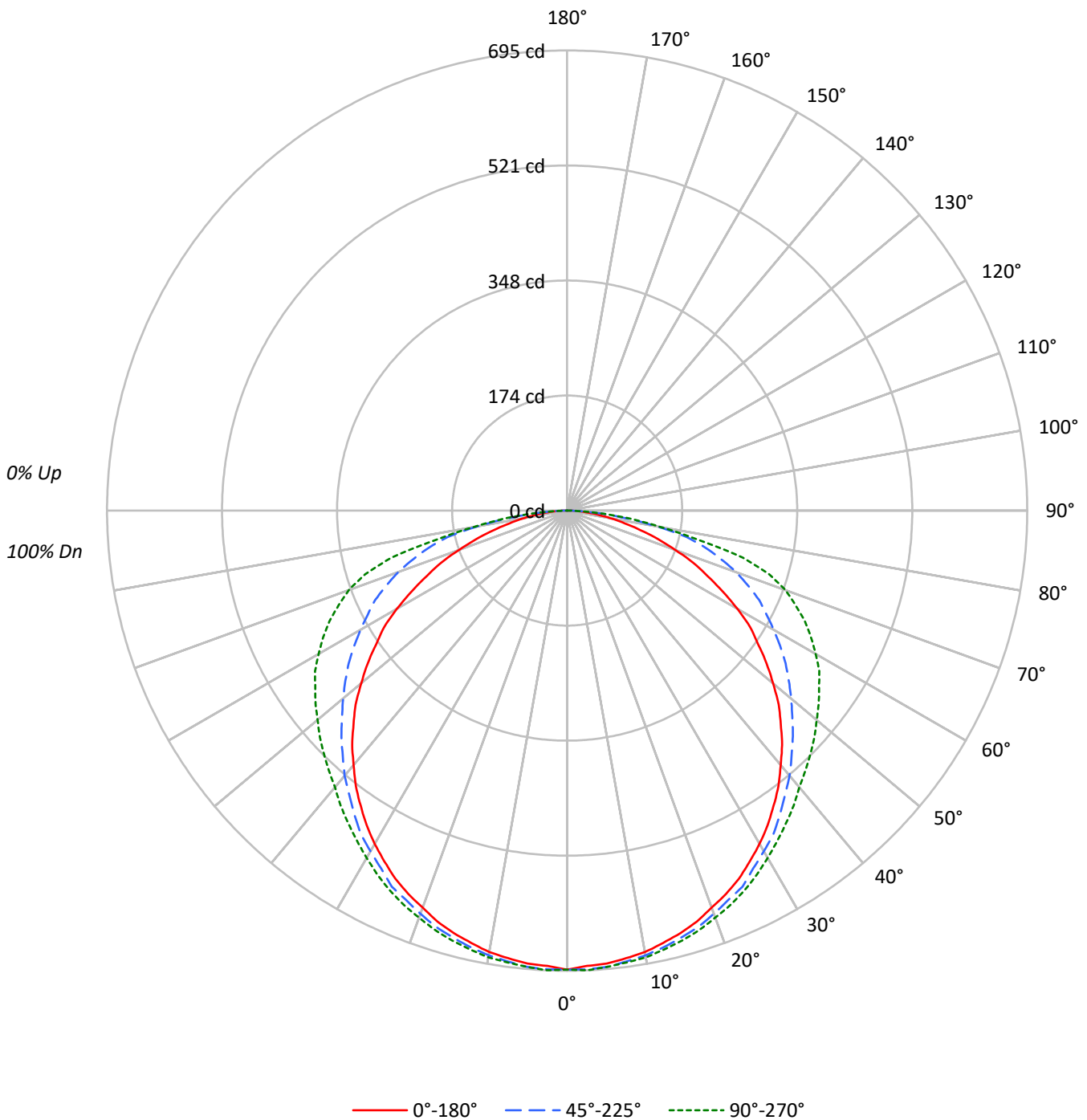
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1866	1866	1866
5°	1855	1868	1868
10°	1850	1863	1872
15°	1841	1859	1873
20°	1827	1855	1874
25°	1822	1861	1880
30°	1806	1846	1882
35°	1787	1840	1894
40°	1762	1837	1916
45°	1736	1835	1977
50°	1699	1849	2060
55°	1653	1889	2179
60°	1599	1940	2333
65°	1489	2037	2523
70°	1367	2133	2759
75°	1199	2245	2853
80°	1032	2139	2239
85°	902	1553	1704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.6	3.0
10°-20°	188.3	8.5
20°-30°	287.3	13.0
30°-40°	350.8	15.9
40°-50°	375.1	17.0
50°-60°	362.0	16.4
60°-70°	311.6	14.1
70°-80°	210.8	9.6
80°-90°	55.6	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°	541.2	24.5
0°-40°	891.9	40.4
0°-60°	1629.0	73.8
0°-90°	2207.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2207.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	693	693	693	693	693	
5°	687	688	692	692	692	65
15°	661	662	667	671	672	186
25°	614	617	627	630	633	282
35°	544	549	560	572	576	340
45°	456	464	482	507	520	352
55°	352	364	403	443	464	316
65°	234	256	320	370	396	233
75°	115	153	216	260	274	124
85°	29	41	50	52	55	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	693.3	693.3	693.3	693.3	693.3
2.5°	688.4	690.0	693.3	693.3	694.9
5°	686.8	688.4	691.7	691.7	691.7
7.5°	681.9	683.5	686.8	688.4	688.4
10°	677.1	678.7	681.9	683.5	685.2
12.5°	668.9	670.6	675.4	678.7	678.7
15°	660.8	662.4	667.3	670.6	672.2
17.5°	651.1	654.3	659.2	662.4	664.1
20°	638.1	641.3	647.8	652.7	654.3
22.5°	626.7	630.0	636.5	641.3	644.6
25°	613.7	617.0	626.7	630.0	633.2
27.5°	597.5	600.7	608.9	615.4	620.2
30°	581.3	584.5	594.2	602.4	605.6
32.5°	563.4	568.3	579.6	586.1	591.0
35°	543.9	548.8	560.2	571.5	576.4
37.5°	524.4	529.3	540.7	555.3	561.8
40°	501.7	508.2	522.8	542.3	545.5
42.5°	480.6	488.7	501.7	524.4	532.5
45°	456.2	464.4	482.2	506.6	519.6
47.5°	433.5	441.6	461.1	490.3	506.6
50°	405.9	417.3	441.6	475.7	492.0
52.5°	379.9	389.7	422.1	459.5	479.0
55°	352.3	363.7	402.7	443.3	464.4
57.5°	328.0	337.7	381.6	427.0	451.4
60°	297.1	310.1	360.4	409.2	433.5
62.5°	264.7	284.1	339.3	389.7	415.6
65°	233.8	256.5	319.9	370.2	396.2
67.5°	206.2	230.6	295.5	349.1	373.4
70°	173.7	204.6	271.1	323.1	350.7
72.5°	144.5	178.6	243.5	295.5	319.9
75°	115.3	152.6	215.9	259.8	274.4
77.5°	89.3	125.0	185.1	198.1	199.7
80°	66.6	99.0	138.0	139.6	144.5
82.5°	45.5	69.8	89.3	97.4	99.0
85°	29.2	40.6	50.3	52.0	55.2
87.5°	13.0	14.6	17.9	16.2	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)