

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: P390793

Luminaire Tested: **22CZ2-90VHE-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: P390793
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: 22CZ2-90VHE-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: 6467.5 lumens
Efficiency: N/A
Efficacy: 94.8 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

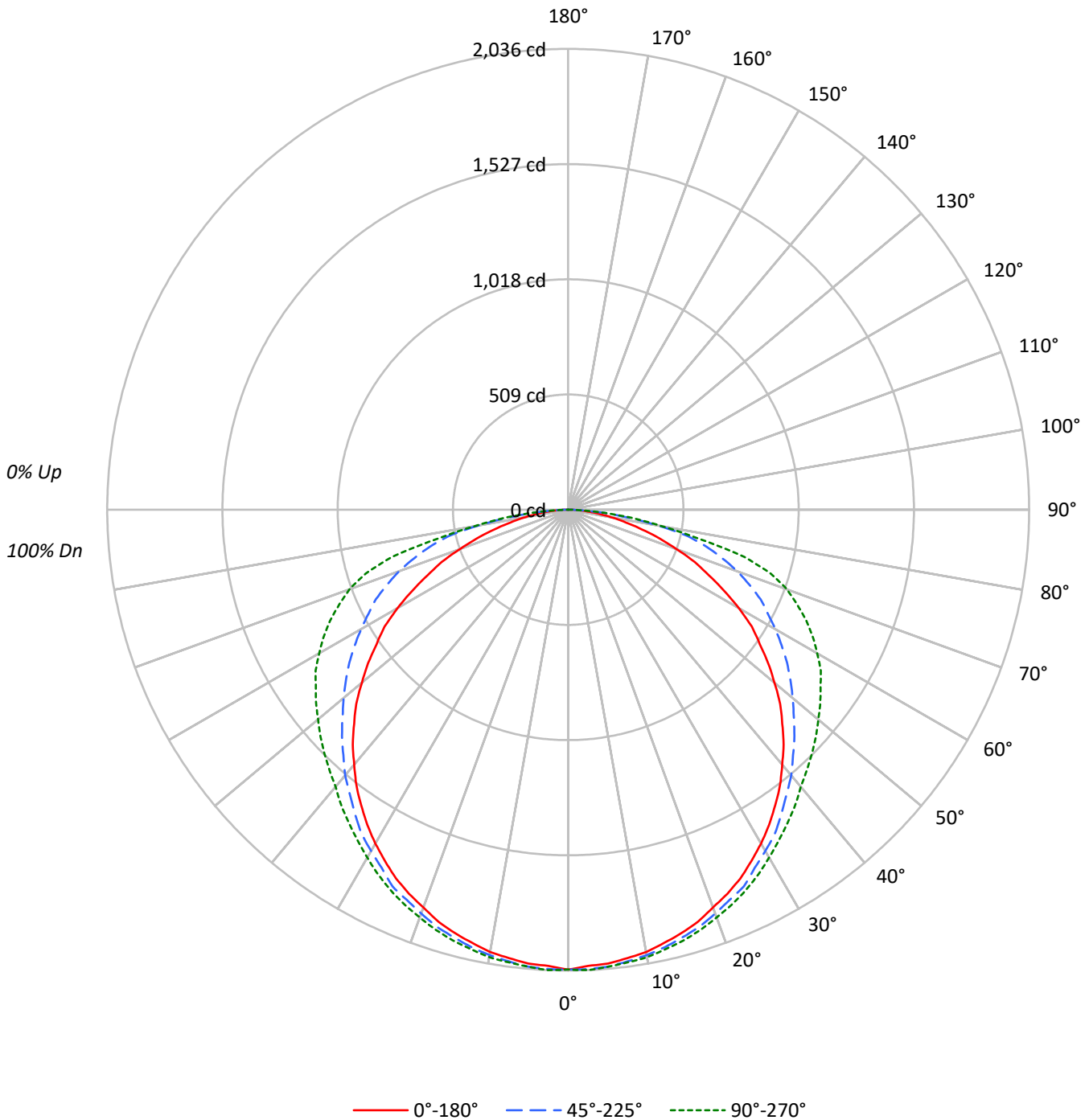
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5467	5467	5467
5°	5436	5475	5475
10°	5421	5460	5486
15°	5395	5448	5487
20°	5355	5436	5491
25°	5340	5453	5509
30°	5293	5411	5514
35°	5236	5392	5548
40°	5164	5382	5616
45°	5088	5377	5794
50°	4979	5418	6035
55°	4844	5536	6384
60°	4686	5684	6837
65°	4362	5968	7392
70°	4006	6251	8086
75°	3512	6579	8360
80°	3023	6267	6561
85°	2643	4554	4996



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.2	3.0
10°-20°	551.8	8.5
20°-30°	841.8	13.0
30°-40°	1027.9	15.9
40°-50°	1099.0	17.0
50°-60°	1060.8	16.4
60°-70°	913.2	14.1
70°-80°	617.8	9.6
80°-90°	163.0	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°	1585.7	24.5
0°-40°	2613.6	40.4
0°-60°	4773.4	73.8
0°-90°	6467.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6467.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2032	2032	2032	2032	2032	
5°	2012	2017	2027	2027	2027	191
15°	1936	1941	1955	1965	1970	546
25°	1798	1808	1836	1846	1856	828
35°	1594	1608	1641	1675	1689	997
45°	1337	1361	1413	1484	1522	1032
55°	1032	1066	1180	1299	1361	925
65°	685	752	937	1085	1161	681
75°	338	447	633	761	804	362
85°	86	119	148	152	162	96
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2031.6	2031.6	2031.6	2031.6	2031.6
2.5°	2017.3	2022.0	2031.6	2031.6	2036.3
5°	2012.5	2017.3	2026.8	2026.8	2026.8
7.5°	1998.3	2003.0	2012.5	2017.3	2017.3
10°	1984.0	1988.7	1998.3	2003.0	2007.8
12.5°	1960.2	1964.9	1979.2	1988.7	1988.7
15°	1936.4	1941.2	1955.4	1964.9	1969.7
17.5°	1907.9	1917.4	1931.6	1941.2	1945.9
20°	1869.8	1879.3	1898.3	1912.6	1917.4
22.5°	1836.5	1846.0	1865.0	1879.3	1888.8
25°	1798.4	1807.9	1836.5	1846.0	1855.5
27.5°	1750.8	1760.4	1784.2	1803.2	1817.5
30°	1703.3	1712.8	1741.3	1765.1	1774.6
32.5°	1650.9	1665.2	1698.5	1717.5	1731.8
35°	1593.8	1608.1	1641.4	1674.7	1689.0
37.5°	1536.7	1551.0	1584.3	1627.1	1646.2
40°	1470.1	1489.2	1532.0	1589.1	1598.6
42.5°	1408.3	1432.1	1470.1	1536.7	1560.5
45°	1336.9	1360.7	1413.0	1484.4	1522.5
47.5°	1270.3	1294.1	1351.2	1436.8	1484.4
50°	1189.4	1222.7	1294.1	1394.0	1441.6
52.5°	1113.3	1141.9	1237.0	1346.4	1403.5
55°	1032.4	1065.7	1179.9	1298.9	1360.7
57.5°	961.1	989.6	1118.1	1251.3	1322.7
60°	870.7	908.7	1056.2	1199.0	1270.3
62.5°	775.5	832.6	994.4	1141.9	1218.0
65°	685.1	751.7	937.3	1084.8	1160.9
67.5°	604.2	675.6	865.9	1022.9	1094.3
70°	509.1	599.5	794.5	946.8	1027.7
72.5°	423.4	523.4	713.7	865.9	937.3
75°	337.8	447.2	632.8	761.2	804.1
77.5°	261.7	366.3	542.4	580.4	585.2
80°	195.1	290.2	404.4	409.2	423.4
82.5°	133.2	204.6	261.7	285.5	290.2
85°	85.6	118.9	147.5	152.2	161.8
87.5°	38.1	42.8	52.3	47.6	47.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)