

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: P390700

Luminaire Tested: **22CZ2-80VHE-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: P390700
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: 22CZ2-80VHE-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: 5794.7 lumens
Efficiency: N/A
Efficacy: 98.0 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

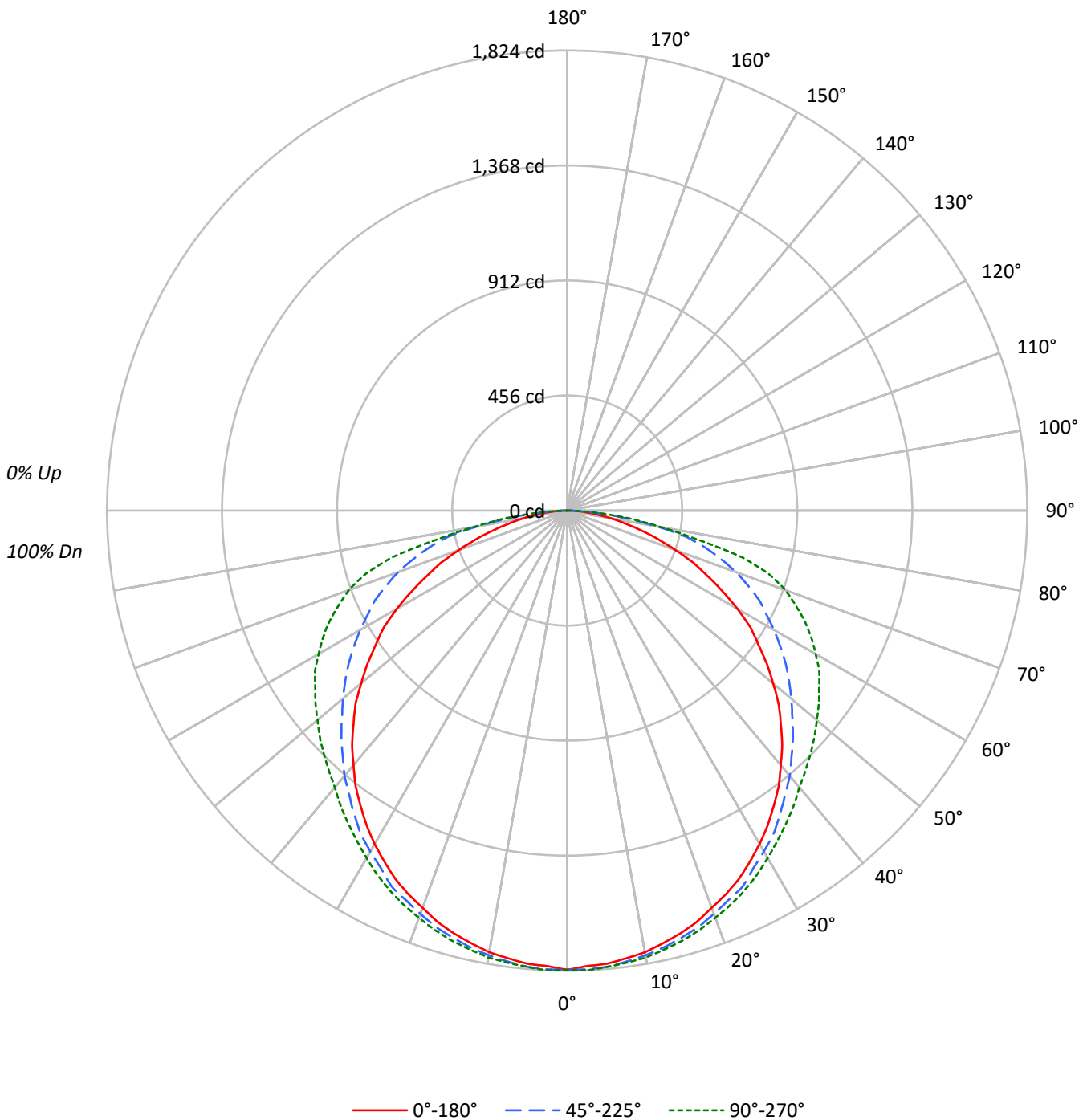
Input Watts (W): 59.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4898	4898	4898
5°	4871	4905	4905
10°	4857	4892	4915
15°	4834	4881	4917
20°	4798	4871	4920
25°	4784	4885	4936
30°	4742	4848	4941
35°	4691	4831	4971
40°	4627	4822	5031
45°	4558	4818	5191
50°	4461	4854	5407
55°	4340	4960	5720
60°	4198	5093	6126
65°	3908	5347	6623
70°	3589	5601	7245
75°	3147	5895	7490
80°	2709	5614	5879
85°	2368	4079	4474



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.2	3.0
10°-20°	494.4	8.5
20°-30°	754.2	13.0
30°-40°	920.9	15.9
40°-50°	984.7	17.0
50°-60°	950.5	16.4
60°-70°	818.2	14.1
70°-80°	553.6	9.6
80°-90°	146.1	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°	1420.8	24.5
0°-40°	2341.7	40.4
0°-60°	4276.9	73.8
0°-90°	5794.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5794.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1820	1820	1820	1820	1820	
5°	1803	1807	1816	1816	1816	171
15°	1735	1739	1752	1760	1765	489
25°	1611	1620	1645	1654	1662	742
35°	1428	1441	1471	1500	1513	894
45°	1198	1219	1266	1330	1364	925
55°	925	955	1057	1164	1219	829
65°	614	674	840	972	1040	610
75°	303	401	567	682	720	325
85°	77	107	132	136	145	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1820.2	1820.2	1820.2	1820.2	1820.2
2.5°	1807.4	1811.7	1820.2	1820.2	1824.5
5°	1803.2	1807.4	1816.0	1816.0	1816.0
7.5°	1790.4	1794.6	1803.2	1807.4	1807.4
10°	1777.6	1781.9	1790.4	1794.6	1798.9
12.5°	1756.3	1760.5	1773.3	1781.9	1781.9
15°	1735.0	1739.2	1752.0	1760.5	1764.8
17.5°	1709.4	1717.9	1730.7	1739.2	1743.5
20°	1675.3	1683.8	1700.9	1713.6	1717.9
22.5°	1645.4	1654.0	1671.0	1683.8	1692.3
25°	1611.3	1619.9	1645.4	1654.0	1662.5
27.5°	1568.7	1577.2	1598.6	1615.6	1628.4
30°	1526.1	1534.6	1560.2	1581.5	1590.0
32.5°	1479.2	1492.0	1521.8	1538.9	1551.7
35°	1428.0	1440.8	1470.7	1500.5	1513.3
37.5°	1376.9	1389.7	1419.5	1457.9	1474.9
40°	1317.2	1334.3	1372.6	1423.8	1432.3
42.5°	1261.8	1283.1	1317.2	1376.9	1398.2
45°	1197.8	1219.2	1266.1	1330.0	1364.1
47.5°	1138.2	1159.5	1210.6	1287.4	1330.0
50°	1065.7	1095.5	1159.5	1249.0	1291.6
52.5°	997.5	1023.1	1108.3	1206.4	1257.5
55°	925.0	954.9	1057.2	1163.7	1219.2
57.5°	861.1	886.7	1001.8	1121.1	1185.1
60°	780.1	814.2	946.3	1074.2	1138.2
62.5°	694.8	746.0	890.9	1023.1	1091.3
65°	613.8	673.5	839.8	971.9	1040.1
67.5°	541.4	605.3	775.8	916.5	980.4
70°	456.1	537.1	711.9	848.3	920.8
72.5°	379.4	468.9	639.4	775.8	839.8
75°	302.7	400.7	567.0	682.0	720.4
77.5°	234.5	328.2	486.0	520.1	524.3
80°	174.8	260.0	362.3	366.6	379.4
82.5°	119.4	183.3	234.5	255.8	260.0
85°	76.7	106.6	132.1	136.4	144.9
87.5°	34.1	38.4	46.9	42.6	42.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)