

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: P390695

Luminaire Tested: **22CZ2-80VHE-HRP-UNV-L930-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: P390695
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-L930-CD1-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: 5667.2 lumens
Efficiency: N/A
Efficacy: 95.9 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

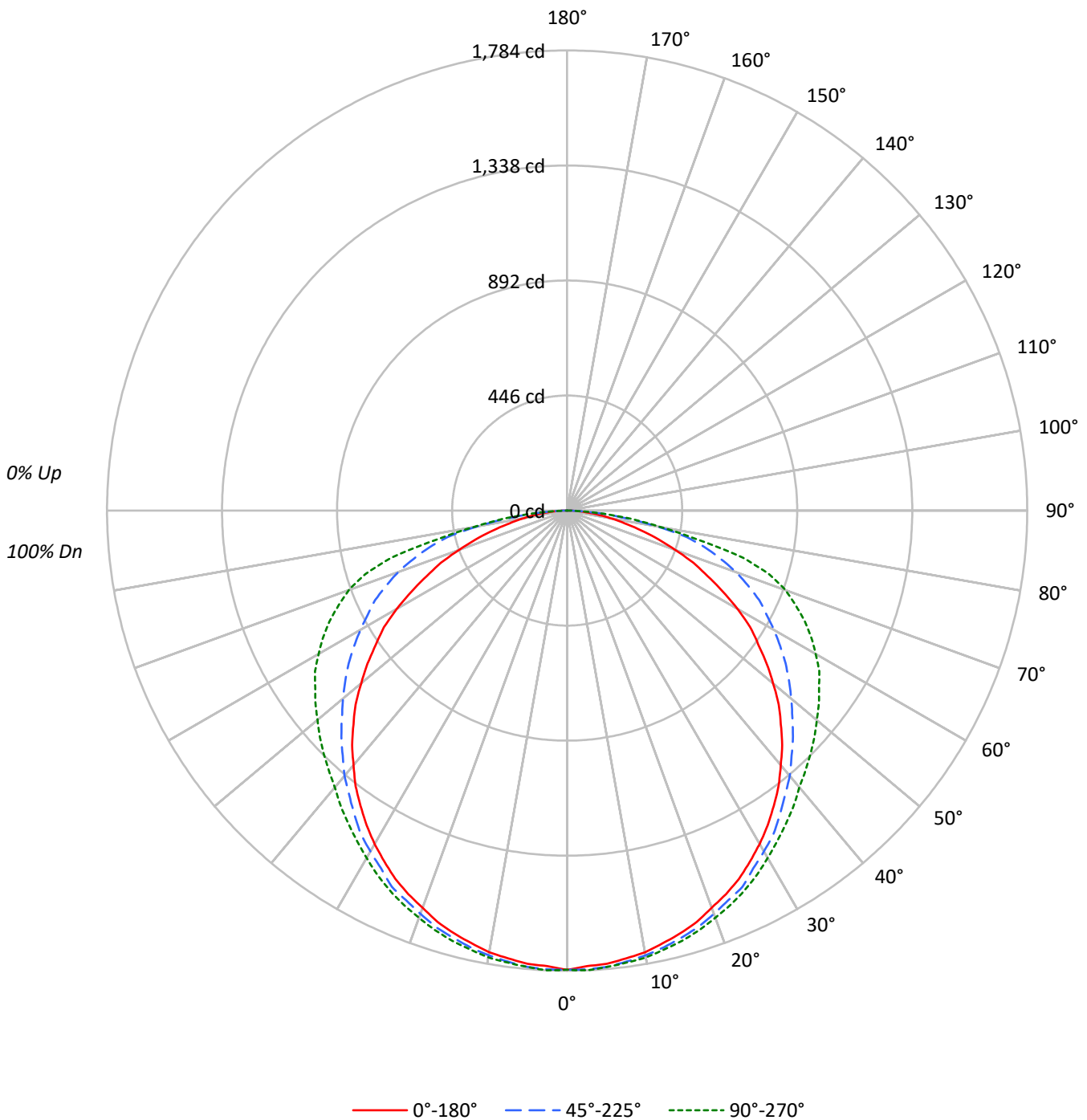
Input Watts (W): 59.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82					82			
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67					67			
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55					55			
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35					35			
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31					31			
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27					27			
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4790	4790	4790
5°	4764	4797	4797
10°	4750	4785	4807
15°	4727	4774	4808
20°	4692	4763	4811
25°	4679	4778	4828
30°	4638	4741	4832
35°	4588	4725	4862
40°	4525	4716	4921
45°	4458	4712	5077
50°	4364	4747	5288
55°	4244	4851	5594
60°	4106	4981	5991
65°	3822	5230	6477
70°	3510	5478	7085
75°	3078	5765	7326
80°	2648	5492	5749
85°	2316	3989	4375



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.4	3.0
10°-20°	483.5	8.5
20°-30°	737.7	13.0
30°-40°	900.7	15.9
40°-50°	963.0	17.0
50°-60°	929.5	16.4
60°-70°	800.2	14.1
70°-80°	541.4	9.6
80°-90°	142.8	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°	1389.5	24.5
0°-40°	2290.2	40.4
0°-60°	4182.8	73.8
0°-90°	5667.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5667.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1780	1780	1780	1780	1780	
5°	1764	1768	1776	1776	1776	167
15°	1697	1701	1714	1722	1726	479
25°	1576	1584	1609	1618	1626	725
35°	1397	1409	1438	1468	1480	874
45°	1172	1192	1238	1301	1334	904
55°	905	934	1034	1138	1192	811
65°	600	659	821	950	1017	597
75°	296	392	554	667	705	318
85°	75	104	129	133	142	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1780.2	1780.2	1780.2	1780.2	1780.2
2.5°	1767.7	1771.8	1780.2	1780.2	1784.3
5°	1763.5	1767.7	1776.0	1776.0	1776.0
7.5°	1751.0	1755.2	1763.5	1767.7	1767.7
10°	1738.5	1742.6	1751.0	1755.2	1759.3
12.5°	1717.6	1721.8	1734.3	1742.6	1742.6
15°	1696.8	1701.0	1713.5	1721.8	1726.0
17.5°	1671.8	1680.1	1692.6	1701.0	1705.1
20°	1638.4	1646.8	1663.4	1675.9	1680.1
22.5°	1609.2	1617.6	1634.3	1646.8	1655.1
25°	1575.9	1584.2	1609.2	1617.6	1625.9
27.5°	1534.2	1542.5	1563.4	1580.1	1592.6
30°	1492.5	1500.8	1525.9	1546.7	1555.0
32.5°	1446.6	1459.2	1488.3	1505.0	1517.5
35°	1396.6	1409.1	1438.3	1467.5	1480.0
37.5°	1346.6	1359.1	1388.3	1425.8	1442.5
40°	1288.2	1304.9	1342.4	1392.4	1400.8
42.5°	1234.0	1254.9	1288.2	1346.6	1367.4
45°	1171.5	1192.3	1238.2	1300.7	1334.1
47.5°	1113.1	1134.0	1184.0	1259.0	1300.7
50°	1042.3	1071.4	1134.0	1221.5	1263.2
52.5°	975.5	1000.6	1083.9	1179.8	1229.9
55°	904.7	933.9	1033.9	1138.1	1192.3
57.5°	842.1	867.2	979.7	1096.4	1159.0
60°	762.9	796.3	925.5	1050.6	1113.1
62.5°	679.5	729.6	871.3	1000.6	1067.3
65°	600.3	658.7	821.3	950.5	1017.2
67.5°	529.5	592.0	758.8	896.3	958.9
70°	446.1	525.3	696.2	829.6	900.5
72.5°	371.0	458.6	625.4	758.8	821.3
75°	296.0	391.9	554.5	667.0	704.6
77.5°	229.3	321.0	475.3	508.6	512.8
80°	170.9	254.3	354.4	358.5	371.0
82.5°	116.7	179.3	229.3	250.1	254.3
85°	75.0	104.2	129.2	133.4	141.7
87.5°	33.4	37.5	45.9	41.7	41.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)