

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: P390653

Luminaire Tested: **22CZ2-75VHE-HRP-UNV-L940-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: P390653
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: 22CZ2-75VHE-HRP-UNV-L940-CD1-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: 5479.5 lumens
Efficiency: N/A
Efficacy: 100.2 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

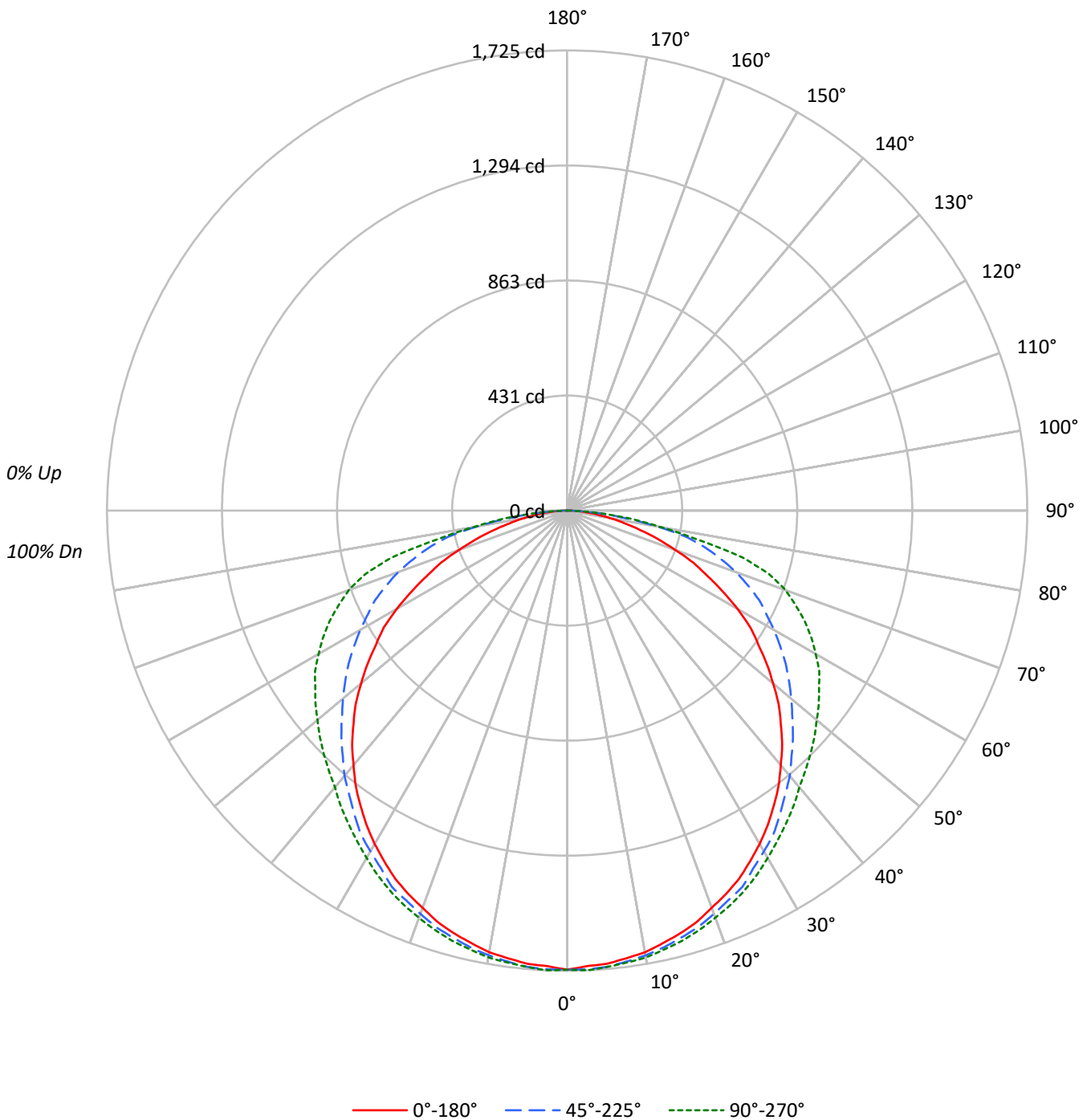
Input Watts (W): 54.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4632	4632	4632
5°	4606	4639	4639
10°	4593	4626	4648
15°	4571	4615	4649
20°	4537	4606	4652
25°	4524	4620	4668
30°	4484	4584	4672
35°	4436	4569	4701
40°	4376	4560	4758
45°	4311	4556	4909
50°	4219	4590	5113
55°	4104	4690	5408
60°	3970	4816	5793
65°	3696	5056	6262
70°	3393	5297	6851
75°	2976	5574	7083
80°	2562	5309	5560
85°	2242	3859	4233



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.8	3.0
10°-20°	467.5	8.5
20°-30°	713.2	13.0
30°-40°	870.9	15.9
40°-50°	931.1	17.0
50°-60°	898.7	16.4
60°-70°	773.7	14.1
70°-80°	523.5	9.6
80°-90°	138.1	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°	1343.5	24.5
0°-40°	2214.4	40.4
0°-60°	4044.2	73.8
0°-90°	5479.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5479.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1721	1721	1721	1721	1721	
5°	1705	1709	1717	1717	1717	162
15°	1641	1645	1657	1665	1669	463
25°	1524	1532	1556	1564	1572	701
35°	1350	1362	1391	1419	1431	845
45°	1133	1153	1197	1258	1290	874
55°	875	903	1000	1100	1153	784
65°	580	637	794	919	984	577
75°	286	379	536	645	681	307
85°	73	101	125	129	137	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1721.2	1721.2	1721.2	1721.2	1721.2
2.5°	1709.1	1713.1	1721.2	1721.2	1725.2
5°	1705.1	1709.1	1717.2	1717.2	1717.2
7.5°	1693.0	1697.0	1705.1	1709.1	1709.1
10°	1680.9	1684.9	1693.0	1697.0	1701.1
12.5°	1660.7	1664.8	1676.9	1684.9	1684.9
15°	1640.6	1644.6	1656.7	1664.8	1668.8
17.5°	1616.4	1624.5	1636.6	1644.6	1648.6
20°	1584.2	1592.2	1608.3	1620.4	1624.5
22.5°	1555.9	1564.0	1580.1	1592.2	1600.3
25°	1523.7	1531.8	1555.9	1564.0	1572.1
27.5°	1483.4	1491.4	1511.6	1527.7	1539.8
30°	1443.1	1451.1	1475.3	1495.5	1503.5
32.5°	1398.7	1410.8	1439.0	1455.2	1467.3
35°	1350.4	1362.5	1390.7	1418.9	1431.0
37.5°	1302.0	1314.1	1342.3	1378.6	1394.7
40°	1245.6	1261.7	1298.0	1346.3	1354.4
42.5°	1193.2	1213.3	1245.6	1302.0	1322.1
45°	1132.7	1152.8	1197.2	1257.6	1289.9
47.5°	1076.3	1096.4	1144.8	1217.3	1257.6
50°	1007.7	1035.9	1096.4	1181.1	1221.4
52.5°	943.2	967.4	1048.0	1140.8	1189.1
55°	874.7	902.9	999.7	1100.4	1152.8
57.5°	814.2	838.4	947.3	1060.1	1120.6
60°	737.7	769.9	894.9	1015.8	1076.3
62.5°	657.0	705.4	842.5	967.4	1031.9
65°	580.5	636.9	794.1	919.1	983.5
67.5°	511.9	572.4	733.6	866.6	927.1
70°	431.3	507.9	673.2	802.2	870.7
72.5°	358.8	443.4	604.6	733.6	794.1
75°	286.2	378.9	536.1	644.9	681.2
77.5°	221.7	310.4	459.5	491.8	495.8
80°	165.3	245.9	342.6	346.7	358.8
82.5°	112.9	173.3	221.7	241.9	245.9
85°	72.6	100.8	125.0	129.0	137.1
87.5°	32.2	36.3	44.3	40.3	40.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)