

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: P391657

Luminaire Tested: **24CZ2-75VHE-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: P391657
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75VHE-HRP-UNV-L935-CD1-SWPD1-U
Description: 2x4 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: 5430.6 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

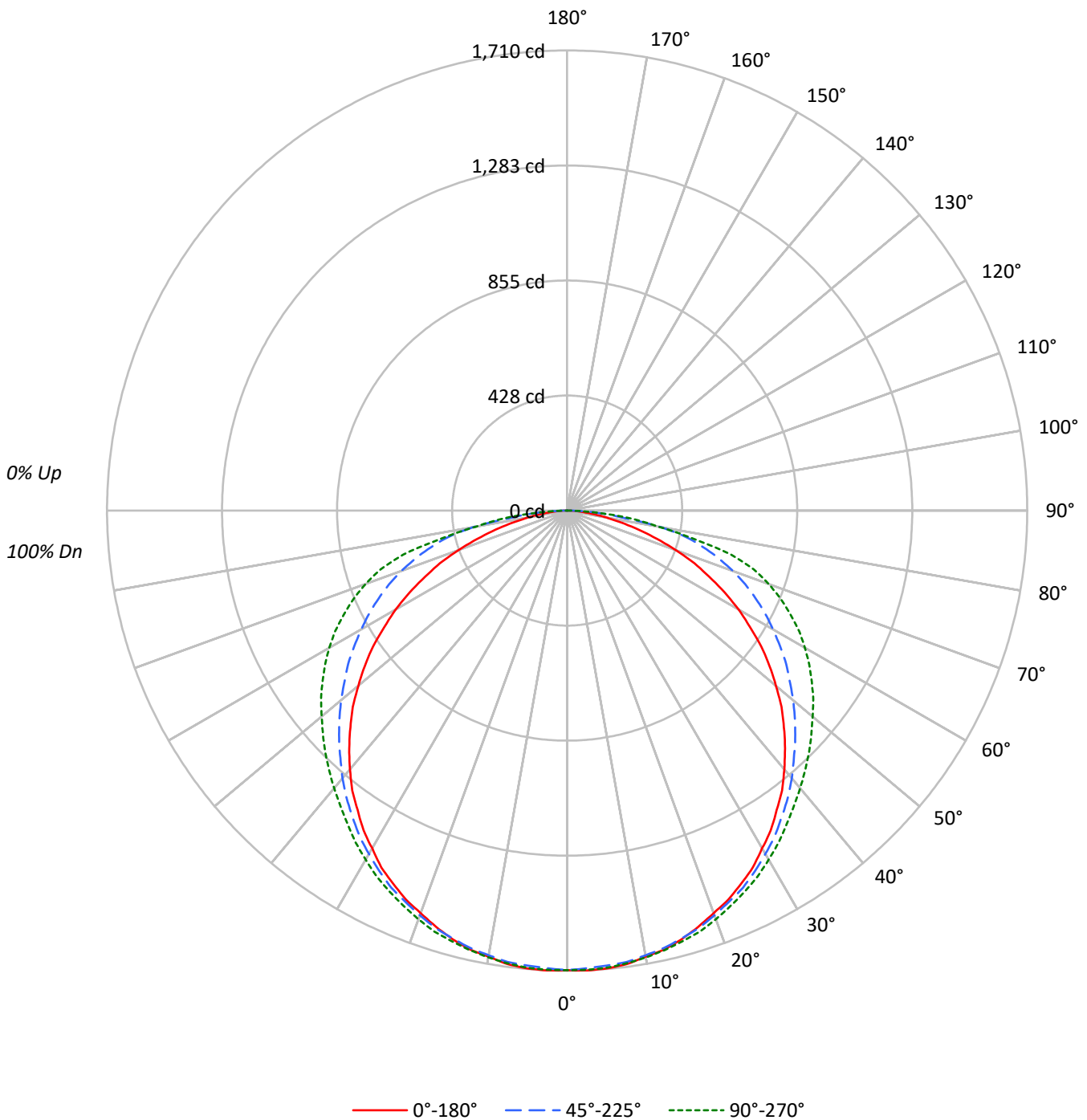
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	2298	2298	2298
5°	2307	2292	2303
10°	2300	2293	2304
15°	2296	2293	2308
20°	2279	2291	2314
25°	2271	2295	2319
30°	2252	2289	2327
35°	2230	2283	2336
40°	2205	2280	2366
45°	2168	2281	2419
50°	2120	2295	2492
55°	2066	2332	2603
60°	1979	2377	2747
65°	1852	2461	2916
70°	1685	2575	3137
75°	1429	2717	3277
80°	1127	2734	2651
85°	832	2079	2328



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.0	3.0
10°-20°	466.2	8.6
20°-30°	713.0	13.1
30°-40°	871.6	16.0
40°-50°	928.9	17.1
50°-60°	888.2	16.4
60°-70°	752.4	13.9
70°-80°	505.7	9.3
80°-90°	142.6	2.6
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°	1341.2	24.7
0°-40°	2212.8	40.7
0°-60°	4029.9	74.2
0°-90°	5430.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5430.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1708	1708	1708	1708	1708	
5°	1708	1705	1697	1705	1705	162
15°	1648	1648	1646	1659	1657	465
25°	1530	1535	1546	1560	1562	705
35°	1358	1368	1390	1417	1422	850
45°	1139	1158	1199	1250	1271	879
55°	881	913	994	1072	1110	785
65°	582	641	773	875	916	578
75°	275	374	523	612	630	294
85°	54	110	135	146	151	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1707.8	1707.8	1707.8	1707.8	1707.8
2.5°	1710.5	1710.5	1702.4	1707.8	1707.8
5°	1707.8	1705.1	1697.0	1705.1	1705.1
7.5°	1699.7	1697.0	1691.6	1699.7	1697.0
10°	1683.5	1683.5	1678.1	1686.2	1686.2
12.5°	1670.1	1667.4	1664.7	1675.4	1672.8
15°	1648.5	1648.5	1645.8	1659.3	1656.6
17.5°	1621.6	1624.3	1627.0	1637.7	1640.4
20°	1591.9	1597.3	1600.0	1616.2	1616.2
22.5°	1565.0	1567.7	1573.1	1589.2	1589.2
25°	1530.0	1535.4	1546.2	1559.6	1562.3
27.5°	1495.0	1497.7	1511.1	1530.0	1532.7
30°	1449.2	1457.3	1473.4	1495.0	1497.7
32.5°	1408.8	1416.9	1435.7	1457.3	1462.6
35°	1357.6	1368.4	1389.9	1416.9	1422.2
37.5°	1311.8	1319.9	1346.8	1376.5	1384.5
40°	1255.2	1271.4	1298.3	1333.4	1346.8
42.5°	1198.7	1214.8	1247.2	1292.9	1309.1
45°	1139.4	1158.3	1198.7	1249.8	1271.4
47.5°	1080.2	1101.7	1147.5	1206.8	1231.0
50°	1012.8	1039.7	1096.3	1163.7	1190.6
52.5°	948.2	980.5	1042.4	1117.9	1152.9
55°	880.8	913.1	994.0	1072.1	1109.8
57.5°	805.4	848.5	937.4	1026.3	1066.7
60°	735.4	775.8	883.5	980.5	1020.9
62.5°	659.9	713.8	829.6	932.0	972.4
65°	581.8	641.1	773.1	875.4	915.8
67.5°	511.8	576.4	716.5	818.9	859.3
70°	428.3	509.1	654.6	756.9	797.3
72.5°	350.2	439.1	589.9	689.6	727.3
75°	274.8	374.4	522.6	611.5	630.3
77.5°	204.7	309.8	452.5	490.2	476.8
80°	145.5	247.8	352.9	334.0	342.1
82.5°	94.3	188.6	218.2	247.8	255.9
85°	53.9	110.4	134.7	145.5	150.8
87.5°	24.2	40.4	53.9	53.9	51.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)