

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: P391654

Luminaire Tested: **24CZ2-75VHE-HRP-UNV-L930-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: P391654
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-L930-CD1-SWPD1-U
Description: 2x4 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: 5299.5 lumens
Efficiency: N/A
Efficacy: 106.2 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

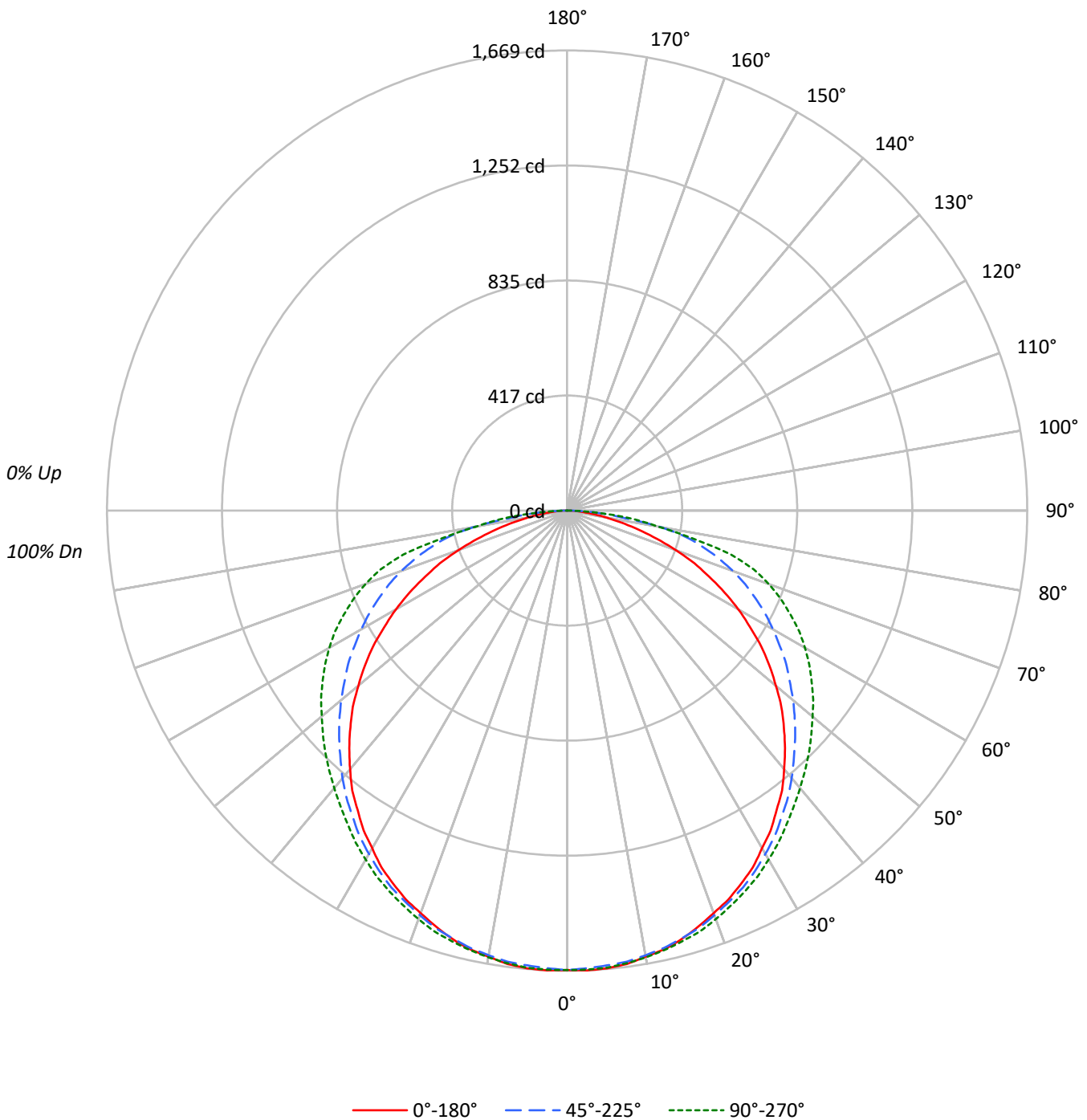
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P391654

CATALOG NUMBER: 24CZ2-75VHE-HRP-UNV-L930-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P391654

CATALOG NUMBER: 24CZ2-75VHE-HRP-UNV-L930-CD1-SWPD1-U

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°	2242	2242	2242
5°	2251	2237	2247
10°	2245	2237	2248
15°	2241	2237	2252
20°	2224	2236	2258
25°	2217	2240	2263
30°	2197	2234	2271
35°	2176	2228	2280
40°	2151	2225	2308
45°	2116	2226	2361
50°	2069	2239	2432
55°	2016	2275	2540
60°	1931	2320	2681
65°	1808	2402	2845
70°	1644	2513	3061
75°	1394	2651	3198
80°	1099	2668	2586
85°	812	2029	2272



TEST NUMBER: P391654

CATALOG NUMBER: 24CZ2-75VHE-HRP-UNV-L930-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.1	3.0
10°-20°	455.0	8.6
20°-30°	695.8	13.1
30°-40°	850.5	16.0
40°-50°	906.5	17.1
50°-60°	866.7	16.4
60°-70°	734.2	13.9
70°-80°	493.5	9.3
80°-90°	139.2	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°	1308.8	24.7
0°-40°	2159.4	40.7
0°-60°	3932.6	74.2
0°-90°	5299.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5299.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1666	1666	1666	1666	1666	
5°	1666	1664	1656	1664	1664	158
15°	1609	1609	1606	1619	1617	454
25°	1493	1498	1509	1522	1525	688
35°	1325	1335	1356	1383	1388	830
45°	1112	1130	1170	1220	1241	858
55°	860	891	970	1046	1083	766
65°	568	626	754	854	894	564
75°	268	365	510	597	615	287
85°	53	108	131	142	147	65
90°	0	0	0	0	0	



TEST NUMBER: P391654

CATALOG NUMBER: 24CZ2-75VHE-HRP-UNV-L930-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1666.5	1666.5	1666.5	1666.5	1666.5
2.5°	1669.2	1669.2	1661.3	1666.5	1666.5
5°	1666.5	1663.9	1656.0	1663.9	1663.9
7.5°	1658.7	1656.0	1650.8	1658.7	1656.0
10°	1642.9	1642.9	1637.6	1645.5	1645.5
12.5°	1629.7	1627.1	1624.5	1635.0	1632.4
15°	1608.7	1608.7	1606.1	1619.2	1616.6
17.5°	1582.4	1585.1	1587.7	1598.2	1600.8
20°	1553.5	1558.8	1561.4	1577.2	1577.2
22.5°	1527.2	1529.9	1535.1	1550.9	1550.9
25°	1493.1	1498.3	1508.8	1522.0	1524.6
27.5°	1458.9	1461.5	1474.7	1493.1	1495.7
30°	1414.2	1422.1	1437.9	1458.9	1461.5
32.5°	1374.8	1382.7	1401.1	1422.1	1427.3
35°	1324.8	1335.3	1356.4	1382.7	1387.9
37.5°	1280.1	1288.0	1314.3	1343.2	1351.1
40°	1224.9	1240.7	1267.0	1301.2	1314.3
42.5°	1169.7	1185.5	1217.0	1261.7	1277.5
45°	1111.9	1130.3	1169.7	1219.7	1240.7
47.5°	1054.1	1075.1	1119.8	1177.6	1201.3
50°	988.4	1014.6	1069.8	1135.6	1161.8
52.5°	925.3	956.8	1017.3	1090.9	1125.0
55°	859.6	891.1	970.0	1046.2	1083.0
57.5°	786.0	828.0	914.8	1001.5	1040.9
60°	717.6	757.0	862.2	956.8	996.2
62.5°	644.0	696.6	809.6	909.5	948.9
65°	567.8	625.6	754.4	854.3	893.7
67.5°	499.4	562.5	699.2	799.1	838.5
70°	417.9	496.8	638.8	738.6	778.1
72.5°	341.7	428.5	575.7	672.9	709.7
75°	268.1	365.4	510.0	596.7	615.1
77.5°	199.8	302.3	441.6	478.4	465.3
80°	141.9	241.8	344.3	325.9	333.8
82.5°	92.0	184.0	212.9	241.8	249.7
85°	52.6	107.8	131.4	141.9	147.2
87.5°	23.7	39.4	52.6	52.6	49.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)