

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: P391685

Luminaire Tested: **24CZ2-75VHE-RDP-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: P391685
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-RDP-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4402.0 lumens
Efficiency: N/A
Efficacy: 88.2 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

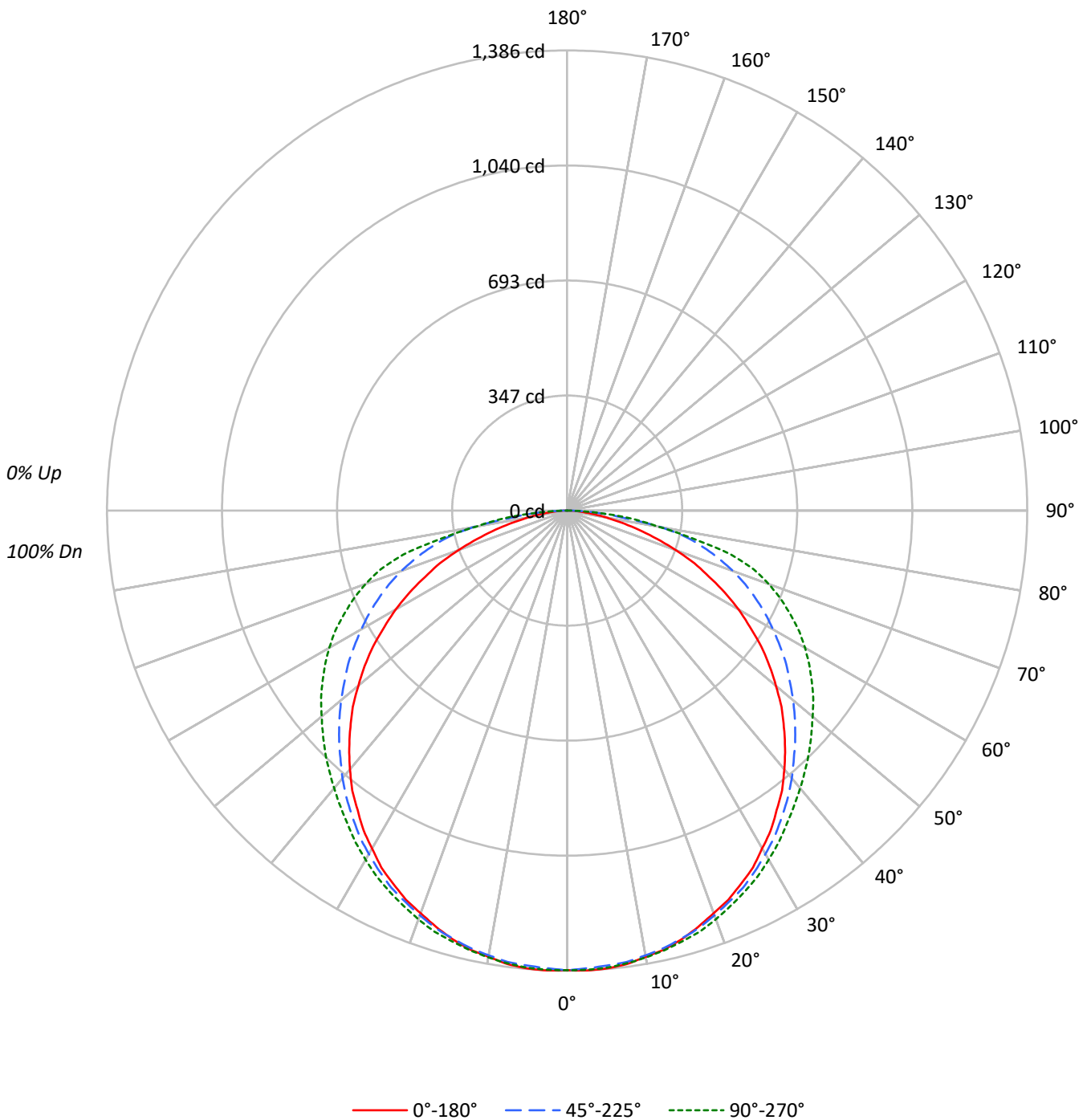
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1863	1863	1863
5°	1870	1858	1867
10°	1865	1859	1867
15°	1861	1858	1870
20°	1848	1857	1876
25°	1841	1861	1880
30°	1825	1856	1886
35°	1808	1851	1894
40°	1787	1848	1917
45°	1757	1849	1961
50°	1719	1860	2020
55°	1675	1890	2110
60°	1604	1927	2227
65°	1501	1995	2364
70°	1366	2087	2543
75°	1158	2202	2656
80°	914	2216	2149
85°	675	1686	1888



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.3	3.0
10°-20°	377.9	8.6
20°-30°	577.9	13.1
30°-40°	706.5	16.0
40°-50°	753.0	17.1
50°-60°	720.0	16.4
60°-70°	609.9	13.9
70°-80°	409.9	9.3
80°-90°	115.6	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°	1087.2	24.7
0°-40°	1793.7	40.7
0°-60°	3266.6	74.2
0°-90°	4402.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4402.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1384	1384	1384	1384	1384	
5°	1384	1382	1376	1382	1382	132
15°	1336	1336	1334	1345	1343	377
25°	1240	1245	1253	1264	1266	572
35°	1100	1109	1127	1148	1153	689
45°	924	939	972	1013	1031	712
55°	714	740	806	869	900	636
65°	472	520	627	710	742	468
75°	223	304	424	496	511	238
85°	44	90	109	118	122	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1384.3	1384.3	1384.3	1384.3	1384.3
2.5°	1386.5	1386.5	1379.9	1384.3	1384.3
5°	1384.3	1382.1	1375.6	1382.1	1382.1
7.5°	1377.8	1375.6	1371.2	1377.8	1375.6
10°	1364.7	1364.7	1360.3	1366.8	1366.8
12.5°	1353.7	1351.6	1349.4	1358.1	1355.9
15°	1336.3	1336.3	1334.1	1345.0	1342.8
17.5°	1314.4	1316.6	1318.8	1327.5	1329.7
20°	1290.4	1294.8	1297.0	1310.1	1310.1
22.5°	1268.6	1270.8	1275.1	1288.2	1288.2
25°	1240.2	1244.6	1253.3	1264.2	1266.4
27.5°	1211.8	1214.0	1224.9	1240.2	1242.4
30°	1174.7	1181.2	1194.3	1211.8	1214.0
32.5°	1141.9	1148.5	1163.8	1181.2	1185.6
35°	1100.5	1109.2	1126.7	1148.5	1152.9
37.5°	1063.3	1069.9	1091.7	1115.7	1122.3
40°	1017.5	1030.6	1052.4	1080.8	1091.7
42.5°	971.6	984.7	1010.9	1048.1	1061.2
45°	923.6	938.9	971.6	1013.1	1030.6
47.5°	875.6	893.0	930.1	978.2	997.8
50°	821.0	842.8	888.7	943.2	965.1
52.5°	768.6	794.8	845.0	906.1	934.5
55°	714.0	740.2	805.7	869.0	899.6
57.5°	652.8	687.8	759.8	831.9	864.6
60°	596.1	628.8	716.2	794.8	827.5
62.5°	534.9	578.6	672.5	755.5	788.2
65°	471.6	519.7	626.6	709.6	742.4
67.5°	414.9	467.3	580.8	663.8	696.5
70°	347.2	412.7	530.6	613.5	646.3
72.5°	283.8	355.9	478.2	559.0	589.5
75°	222.7	303.5	423.6	495.6	510.9
77.5°	165.9	251.1	366.8	397.4	386.5
80°	117.9	200.9	286.0	270.7	277.3
82.5°	76.4	152.8	176.9	200.9	207.4
85°	43.7	89.5	109.2	117.9	122.3
87.5°	19.7	32.8	43.7	43.7	41.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)