

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: P389062

Luminaire Tested: **24CZ2-95VHE-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: P389062
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7758.1 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

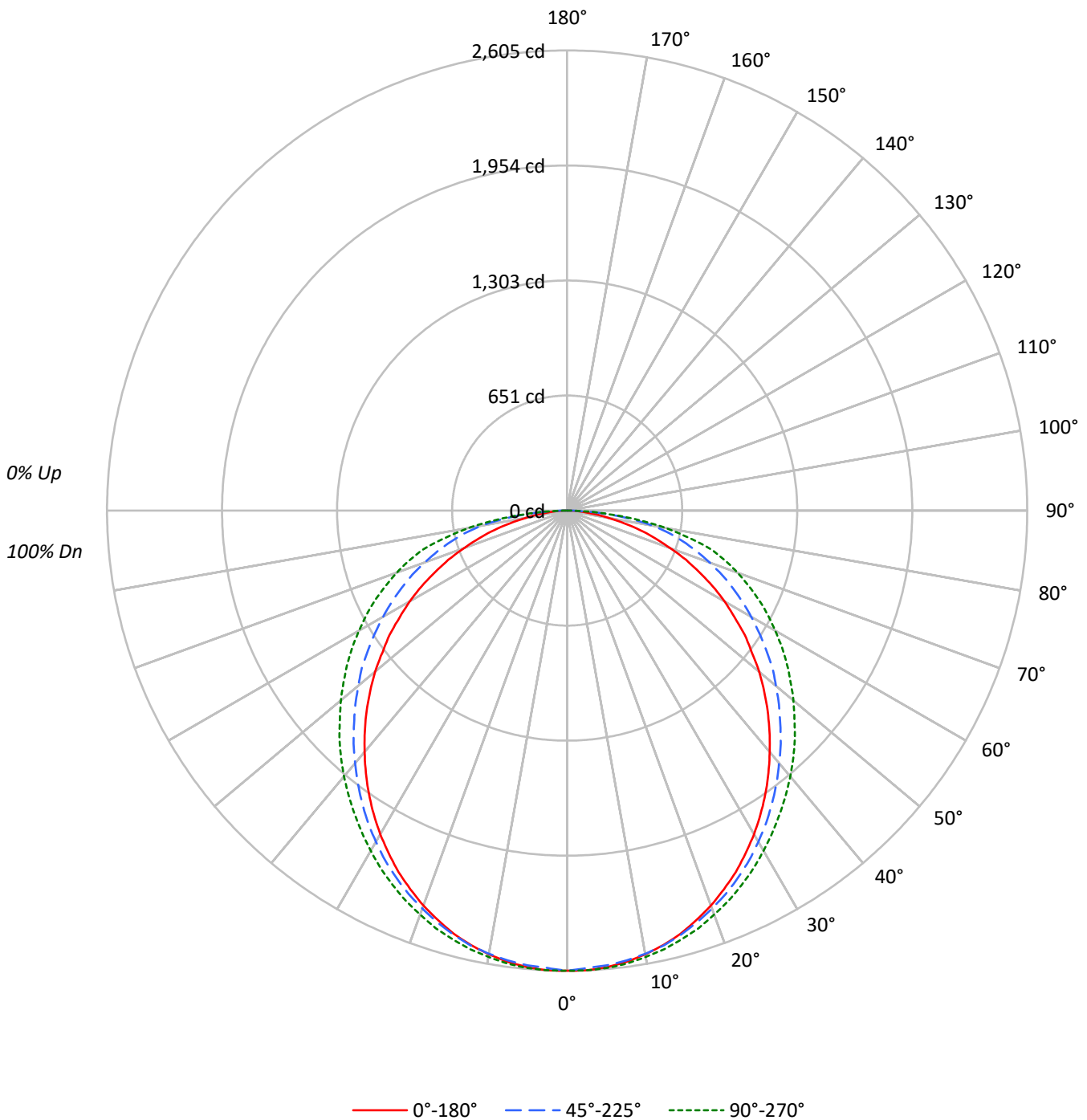
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3505	3505	3505
5°	3504	3490	3511
10°	3484	3481	3506
15°	3455	3462	3498
20°	3407	3433	3485
25°	3352	3402	3471
30°	3287	3363	3455
35°	3215	3322	3445
40°	3133	3279	3452
45°	3055	3247	3468
50°	2970	3230	3501
55°	2879	3225	3565
60°	2766	3240	3658
65°	2621	3289	3817
70°	2434	3371	4033
75°	2221	3540	4375
80°	1826	3812	4373
85°	1399	3518	3758



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.3	3.2
10°-20°	703.3	9.1
20°-30°	1058.4	13.6
30°-40°	1268.3	16.3
40°-50°	1321.7	17.0
50°-60°	1229.7	15.9
60°-70°	1012.8	13.1
70°-80°	689.8	8.9
80°-90°	227.7	2.9
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°	2008.0	25.9
0°-40°	3276.3	42.2
0°-60°	5827.8	75.1
0°-90°	7758.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7758.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2605	2605	2605	2605	2605	
5°	2594	2594	2584	2597	2600	246
15°	2480	2483	2486	2509	2512	699
25°	2258	2268	2292	2330	2338	1039
35°	1958	1981	2022	2077	2097	1224
45°	1605	1639	1706	1792	1823	1238
55°	1227	1269	1375	1484	1520	1094
65°	823	893	1033	1155	1199	817
75°	427	523	681	803	842	450
85°	91	176	228	243	243	112
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2604.8	2604.8	2604.8	2604.8	2604.8
2.5°	2604.8	2604.8	2591.8	2604.8	2604.8
5°	2594.4	2594.4	2584.0	2597.0	2599.6
7.5°	2576.3	2578.9	2568.5	2584.0	2586.6
10°	2550.4	2553.0	2547.8	2563.3	2565.9
12.5°	2519.3	2521.9	2521.9	2540.0	2542.6
15°	2480.5	2483.1	2485.7	2509.0	2511.5
17.5°	2431.3	2439.0	2444.2	2472.7	2477.9
20°	2379.5	2387.3	2397.6	2428.7	2433.9
22.5°	2319.9	2330.3	2348.4	2382.1	2389.8
25°	2257.8	2268.2	2291.5	2330.3	2338.1
27.5°	2187.9	2203.4	2231.9	2273.3	2283.7
30°	2115.4	2130.9	2164.6	2208.6	2224.1
32.5°	2037.7	2058.4	2097.3	2146.5	2162.0
35°	1957.5	1980.8	2022.2	2076.6	2097.3
37.5°	1872.0	1897.9	1947.1	2006.6	2032.5
40°	1784.0	1815.0	1866.8	1936.7	1965.2
42.5°	1695.9	1724.4	1789.2	1864.2	1895.3
45°	1605.3	1639.0	1706.3	1791.7	1822.8
47.5°	1512.1	1545.8	1626.0	1716.7	1745.1
50°	1418.9	1452.6	1543.2	1639.0	1672.6
52.5°	1317.9	1361.9	1465.5	1561.3	1595.0
55°	1227.3	1268.7	1374.9	1483.6	1519.9
57.5°	1123.7	1172.9	1289.4	1403.4	1442.2
60°	1027.9	1079.7	1204.0	1320.5	1359.3
62.5°	929.5	986.5	1118.5	1237.6	1281.7
65°	823.4	893.3	1033.1	1154.8	1198.8
67.5°	727.6	800.1	947.7	1071.9	1110.8
70°	618.8	706.9	857.0	981.3	1025.3
72.5°	525.6	613.6	771.6	893.3	937.3
75°	427.2	523.0	681.0	802.7	841.5
77.5°	328.8	435.0	592.9	686.1	699.1
80°	235.6	347.0	492.0	546.3	564.4
82.5°	165.7	266.7	362.5	398.7	409.1
85°	90.6	176.1	227.9	243.4	243.4
87.5°	38.8	75.1	90.6	93.2	95.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)