

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: P389019

Luminaire Tested: **24CZ2-85VHE-UNV-L940-CD1-SDWPD1-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: P389019
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: 24CZ2-85VHE-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7167.7 lumens
Efficiency: N/A
Efficacy: 123.8 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

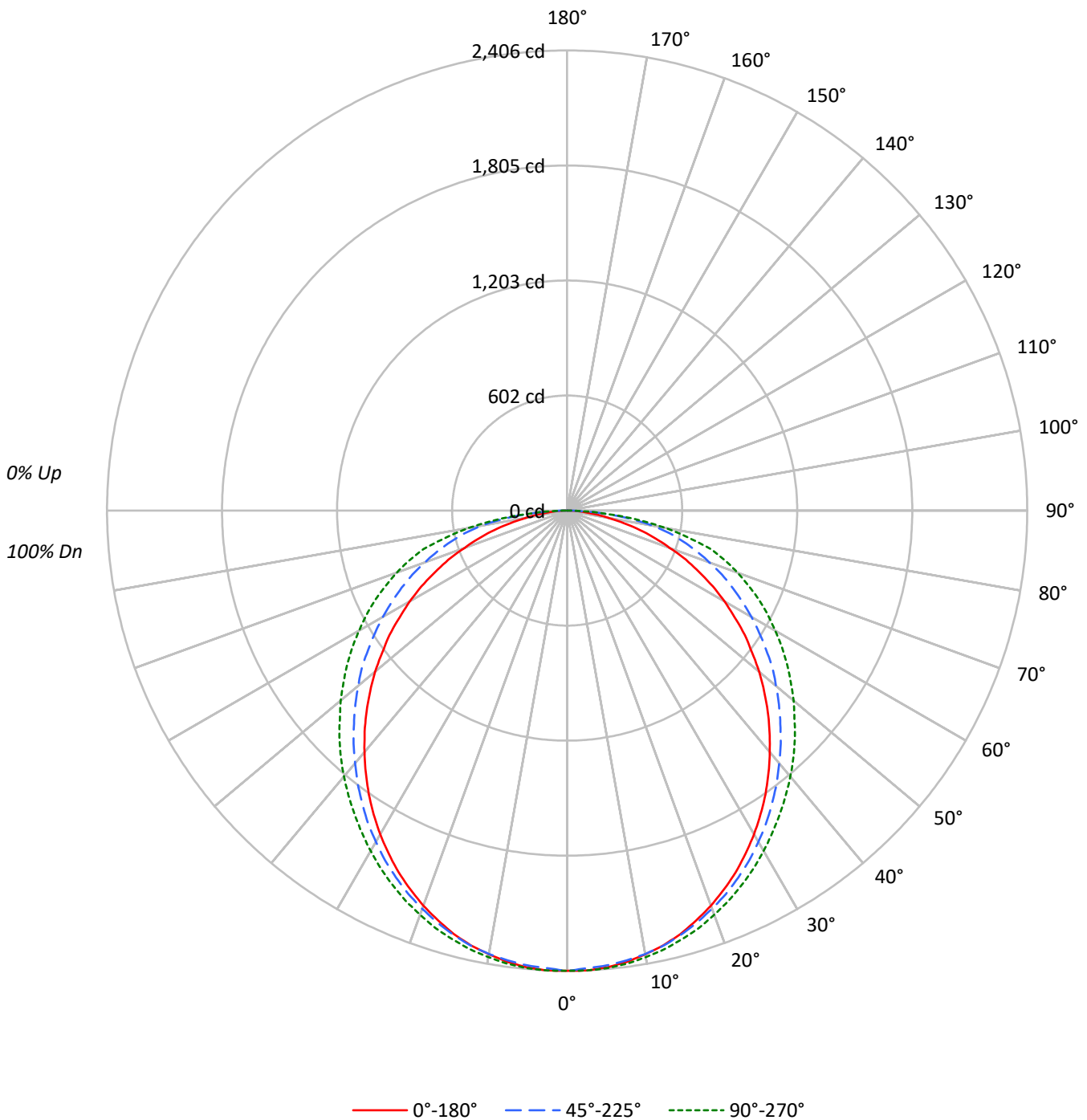
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3238	3238	3238
5°	3237	3224	3244
10°	3219	3216	3239
15°	3192	3199	3232
20°	3148	3172	3220
25°	3097	3143	3207
30°	3036	3107	3193
35°	2971	3069	3183
40°	2895	3029	3189
45°	2822	3000	3205
50°	2744	2984	3235
55°	2660	2980	3294
60°	2556	2993	3380
65°	2422	3039	3526
70°	2249	3115	3727
75°	2052	3270	4042
80°	1687	3522	4041
85°	1292	3250	3472



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.6	3.2
10°-20°	649.8	9.1
20°-30°	977.8	13.6
30°-40°	1171.8	16.3
40°-50°	1221.1	17.0
50°-60°	1136.1	15.9
60°-70°	935.7	13.1
70°-80°	637.3	8.9
80°-90°	210.4	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°	1855.2	25.9
0°-40°	3027.0	42.2
0°-60°	5384.3	75.1
0°-90°	7167.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7167.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2406	2406	2406	2406	2406	
5°	2397	2397	2387	2399	2402	227
15°	2292	2294	2296	2318	2320	646
25°	2086	2096	2117	2153	2160	960
35°	1808	1830	1868	1918	1938	1130
45°	1483	1514	1576	1655	1684	1144
55°	1134	1172	1270	1371	1404	1011
65°	761	825	954	1067	1108	755
75°	395	483	629	742	778	416
85°	84	163	210	225	225	104
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2406.5	2406.5	2406.5	2406.5	2406.5
2.5°	2406.5	2406.5	2394.6	2406.5	2406.5
5°	2397.0	2397.0	2387.4	2399.4	2401.7
7.5°	2380.2	2382.6	2373.0	2387.4	2389.8
10°	2356.3	2358.7	2353.9	2368.3	2370.6
12.5°	2327.6	2330.0	2330.0	2346.7	2349.1
15°	2291.7	2294.1	2296.5	2318.0	2320.4
17.5°	2246.3	2253.4	2258.2	2284.5	2289.3
20°	2198.4	2205.6	2215.2	2243.9	2248.6
22.5°	2143.4	2153.0	2169.7	2200.8	2208.0
25°	2086.0	2095.5	2117.1	2153.0	2160.1
27.5°	2021.4	2035.7	2062.1	2100.3	2109.9
30°	1954.4	1968.8	1999.9	2040.5	2054.9
32.5°	1882.6	1901.8	1937.7	1983.1	1997.5
35°	1808.5	1830.0	1868.3	1918.5	1937.7
37.5°	1729.5	1753.5	1798.9	1853.9	1877.9
40°	1648.2	1676.9	1724.8	1789.3	1815.7
42.5°	1566.9	1593.2	1653.0	1722.4	1751.1
45°	1483.1	1514.2	1576.4	1655.4	1684.1
47.5°	1397.0	1428.1	1502.3	1586.0	1612.3
50°	1310.9	1342.0	1425.7	1514.2	1545.3
52.5°	1217.6	1258.3	1354.0	1442.5	1473.6
55°	1133.9	1172.2	1270.2	1370.7	1404.2
57.5°	1038.2	1083.7	1191.3	1296.6	1332.4
60°	949.7	997.5	1112.4	1220.0	1255.9
62.5°	858.8	911.4	1033.4	1143.5	1184.1
65°	760.7	825.3	954.5	1066.9	1107.6
67.5°	672.2	739.2	875.5	990.4	1026.2
70°	571.7	653.1	791.8	906.6	947.3
72.5°	485.6	566.9	712.9	825.3	866.0
75°	394.7	483.2	629.1	741.6	777.5
77.5°	303.8	401.9	547.8	633.9	645.9
80°	217.7	320.6	454.5	504.7	521.5
82.5°	153.1	246.4	334.9	368.4	378.0
85°	83.7	162.7	210.5	224.9	224.9
87.5°	35.9	69.4	83.7	86.1	88.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)