

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: P389023

Luminaire Tested: **24CZ2-85VHE-UNV-L950-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: P389023
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-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7700.9 lumens
Efficiency: N/A
Efficacy: 133.0 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

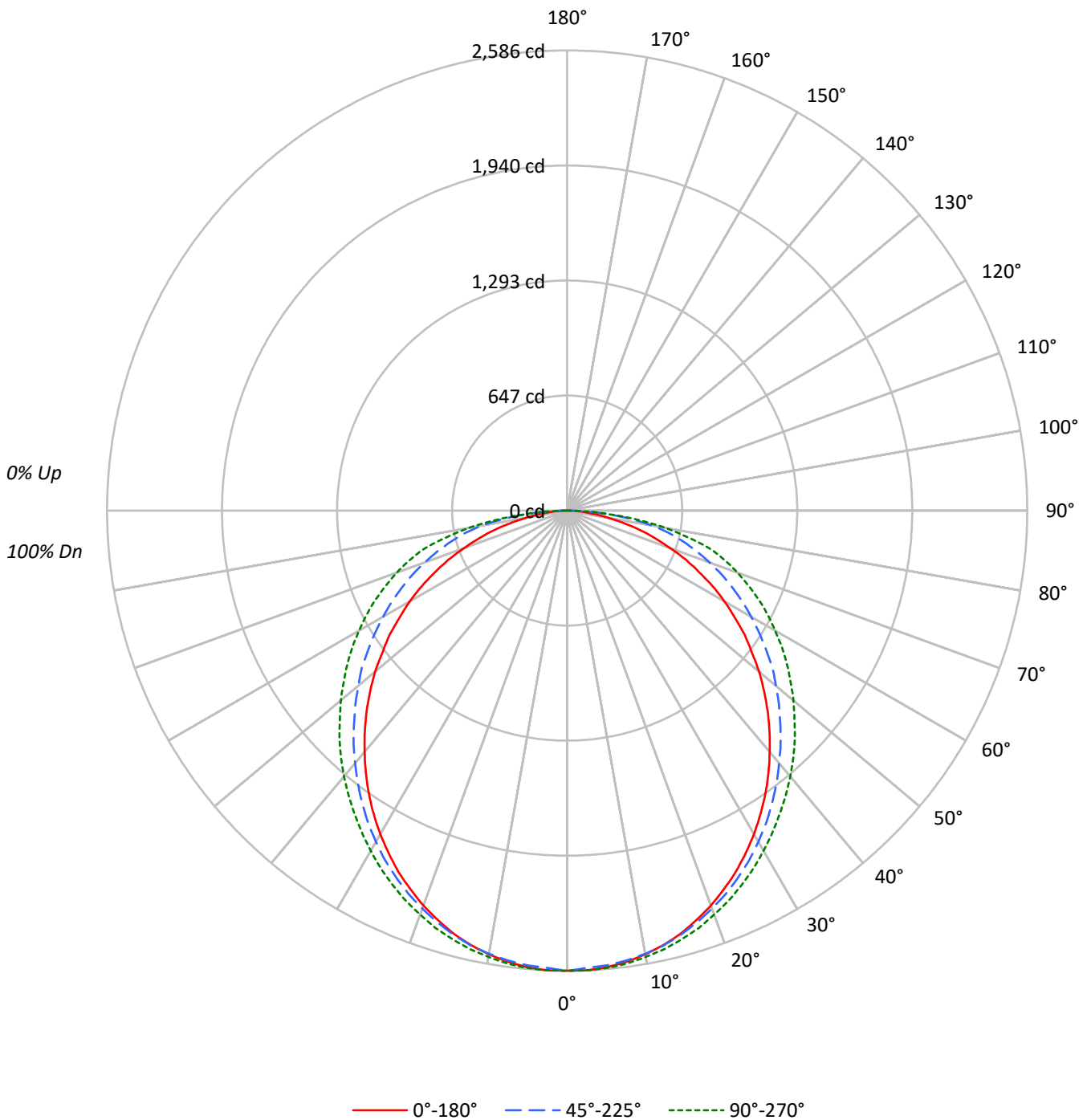
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3479	3479	3479
5°	3478	3464	3485
10°	3459	3455	3480
15°	3430	3437	3473
20°	3382	3408	3459
25°	3327	3377	3445
30°	3262	3338	3430
35°	3191	3297	3419
40°	3110	3255	3426
45°	3032	3223	3443
50°	2948	3206	3475
55°	2858	3201	3539
60°	2746	3216	3631
65°	2602	3265	3789
70°	2417	3347	4004
75°	2205	3514	4342
80°	1812	3784	4341
85°	1389	3492	3730



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.5	3.2
10°-20°	698.1	9.1
20°-30°	1050.6	13.6
30°-40°	1259.0	16.3
40°-50°	1312.0	17.0
50°-60°	1220.6	15.9
60°-70°	1005.4	13.1
70°-80°	684.7	8.9
80°-90°	226.1	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°	1993.2	25.9
0°-40°	3252.2	42.2
0°-60°	5784.8	75.1
0°-90°	7700.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7700.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2586	2586	2586	2586	2586	
5°	2575	2575	2565	2578	2580	244
15°	2462	2465	2467	2490	2493	694
25°	2241	2251	2275	2313	2321	1032
35°	1943	1966	2007	2061	2082	1215
45°	1594	1627	1694	1778	1809	1229
55°	1218	1259	1365	1473	1509	1086
65°	817	887	1026	1146	1190	811
75°	424	519	676	797	835	447
85°	90	175	226	242	242	112
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2585.6	2585.6	2585.6	2585.6	2585.6
2.5°	2585.6	2585.6	2572.7	2585.6	2585.6
5°	2575.3	2575.3	2565.0	2577.8	2580.4
7.5°	2557.3	2559.8	2549.6	2565.0	2567.6
10°	2531.6	2534.1	2529.0	2544.4	2547.0
12.5°	2500.7	2503.3	2503.3	2521.3	2523.9
15°	2462.2	2464.8	2467.3	2490.5	2493.0
17.5°	2413.4	2421.1	2426.2	2454.5	2459.6
20°	2361.9	2369.7	2379.9	2410.8	2415.9
22.5°	2302.8	2313.1	2331.1	2364.5	2372.2
25°	2241.2	2251.4	2274.6	2313.1	2320.8
27.5°	2171.8	2187.2	2215.5	2256.6	2266.9
30°	2099.8	2115.2	2148.6	2192.3	2207.7
32.5°	2022.7	2043.3	2081.8	2130.6	2146.1
35°	1943.0	1966.1	2007.3	2061.2	2081.8
37.5°	1858.2	1883.9	1932.7	1991.9	2017.6
40°	1770.8	1801.7	1853.1	1922.5	1950.7
42.5°	1683.4	1711.7	1776.0	1850.5	1881.3
45°	1593.5	1626.9	1693.7	1778.5	1809.4
47.5°	1501.0	1534.4	1614.0	1704.0	1732.3
50°	1408.4	1441.8	1531.8	1626.9	1660.3
52.5°	1308.2	1351.9	1454.7	1549.8	1583.2
55°	1218.2	1259.4	1364.7	1472.7	1508.7
57.5°	1115.4	1164.3	1279.9	1393.0	1431.6
60°	1020.3	1071.7	1195.1	1310.8	1349.3
62.5°	922.7	979.2	1110.3	1228.5	1272.2
65°	817.3	886.7	1025.5	1146.3	1190.0
67.5°	722.2	794.2	940.7	1064.0	1102.6
70°	614.3	701.6	850.7	974.1	1017.8
72.5°	521.7	609.1	765.9	886.7	930.4
75°	424.1	519.2	675.9	796.7	835.3
77.5°	326.4	431.8	588.6	681.1	693.9
80°	233.9	344.4	488.3	542.3	560.3
82.5°	164.5	264.7	359.8	395.8	406.1
85°	90.0	174.8	226.2	241.6	241.6
87.5°	38.6	74.5	90.0	92.5	95.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)