

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: P388632

Luminaire Tested: **24CZ2-120VHE-UNV-L935-CD2-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: P388632
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: 24CZ2-120VHE-UNV-L935-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10073.1 lumens
Efficiency: N/A
Efficacy: 120.5 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

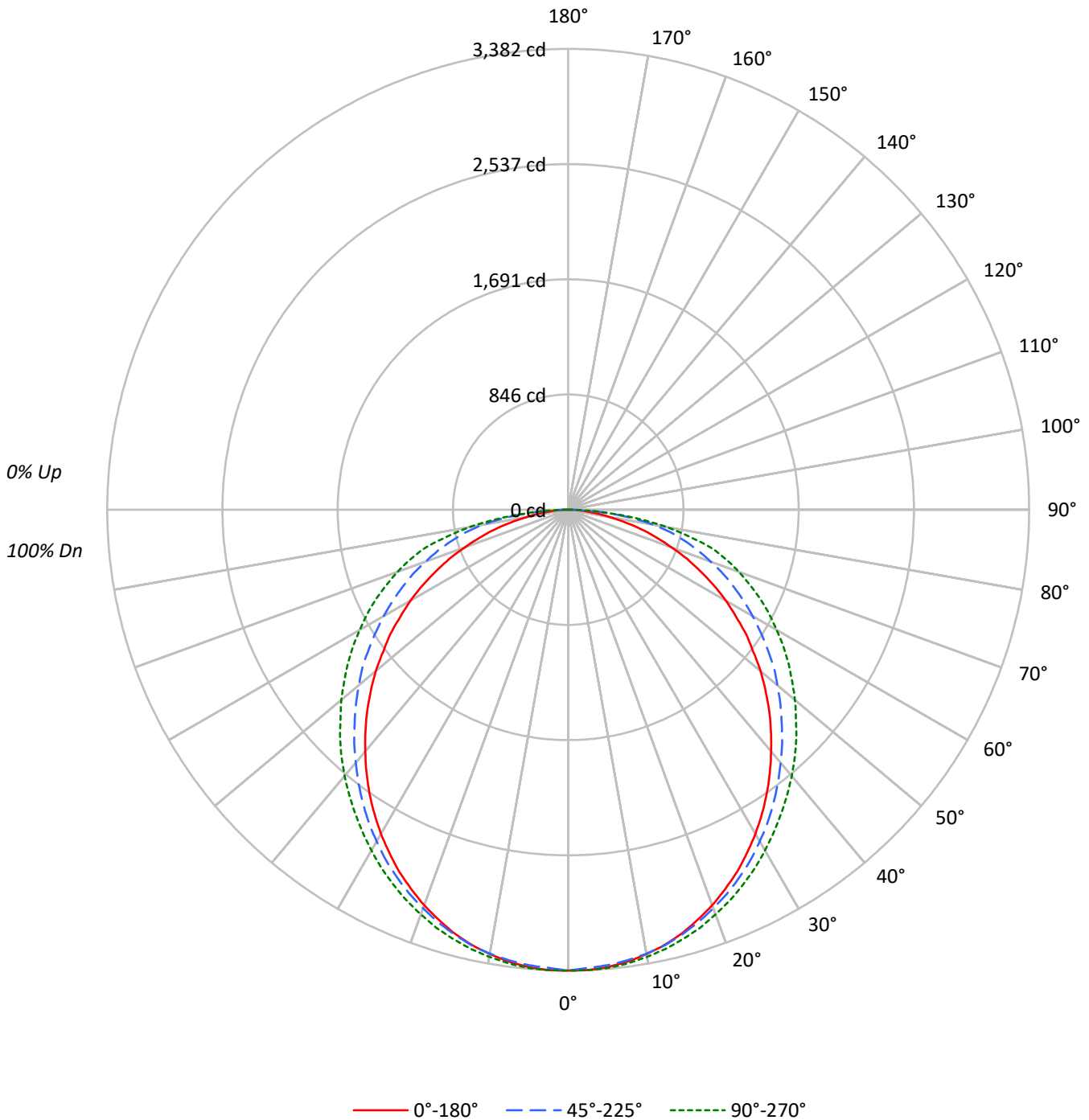
Input Watts (W): 83.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4550	4550	4550
5°	4550	4531	4559
10°	4524	4520	4552
15°	4486	4496	4542
20°	4424	4457	4525
25°	4352	4417	4507
30°	4267	4366	4487
35°	4175	4313	4473
40°	4068	4257	4482
45°	3966	4216	4503
50°	3856	4194	4546
55°	3738	4187	4629
60°	3591	4207	4750
65°	3404	4271	4955
70°	3161	4378	5237
75°	2884	4597	5680
80°	2370	4949	5679
85°	1817	4566	4878



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.9	3.2
10°-20°	913.2	9.1
20°-30°	1374.2	13.6
30°-40°	1646.8	16.3
40°-50°	1716.1	17.0
50°-60°	1596.7	15.9
60°-70°	1315.0	13.1
70°-80°	895.6	8.9
80°-90°	295.7	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°	2607.2	25.9
0°-40°	4254.0	42.2
0°-60°	7566.8	75.1
0°-90°	10073.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10073.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3382	3382	3382	3382	3382	
5°	3369	3369	3355	3372	3375	320
15°	3221	3224	3227	3258	3261	907
25°	2932	2945	2975	3026	3036	1350
35°	2542	2572	2626	2696	2723	1589
45°	2084	2128	2216	2326	2367	1608
55°	1594	1647	1785	1926	1973	1420
65°	1069	1160	1341	1499	1556	1061
75°	555	679	884	1042	1093	585
85°	118	229	296	316	316	146
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3382.0	3382.0	3382.0	3382.0	3382.0
2.5°	3382.0	3382.0	3365.2	3382.0	3382.0
5°	3368.6	3368.6	3355.1	3371.9	3375.3
7.5°	3345.0	3348.4	3334.9	3355.1	3358.5
10°	3311.4	3314.8	3308.0	3328.2	3331.6
12.5°	3271.1	3274.4	3274.4	3298.0	3301.3
15°	3220.6	3224.0	3227.4	3257.6	3261.0
17.5°	3156.8	3166.9	3173.6	3210.6	3217.3
20°	3089.5	3099.6	3113.1	3153.4	3160.1
22.5°	3012.2	3025.7	3049.2	3092.9	3103.0
25°	2931.5	2945.0	2975.2	3025.7	3035.7
27.5°	2840.8	2860.9	2897.9	2951.7	2965.1
30°	2746.6	2766.8	2810.5	2867.6	2887.8
32.5°	2645.8	2672.7	2723.1	2787.0	2807.1
35°	2541.5	2571.8	2625.6	2696.2	2723.1
37.5°	2430.6	2464.2	2528.1	2605.4	2639.0
40°	2316.3	2356.6	2423.9	2514.7	2551.6
42.5°	2202.0	2239.0	2323.0	2420.5	2460.9
45°	2084.3	2128.0	2215.5	2326.4	2366.7
47.5°	1963.3	2007.0	2111.2	2228.9	2265.9
50°	1842.3	1886.0	2003.7	2128.0	2171.7
52.5°	1711.2	1768.3	1902.8	2027.2	2070.9
55°	1593.5	1647.3	1785.1	1926.3	1973.4
57.5°	1459.0	1522.9	1674.2	1822.1	1872.5
60°	1334.6	1401.9	1563.3	1714.5	1765.0
62.5°	1206.9	1280.9	1452.3	1607.0	1664.1
65°	1069.1	1159.8	1341.4	1499.4	1556.5
67.5°	944.7	1038.8	1230.4	1391.8	1442.2
70°	803.5	917.8	1112.8	1274.1	1331.3
72.5°	682.5	796.8	1001.8	1159.8	1217.0
75°	554.7	679.1	884.2	1042.2	1092.6
77.5°	427.0	564.8	769.9	890.9	907.7
80°	305.9	450.5	638.7	709.3	732.9
82.5°	215.2	346.3	470.7	517.7	531.2
85°	117.7	228.6	295.8	316.0	316.0
87.5°	50.4	97.5	117.7	121.0	124.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)