

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: P388631

Luminaire Tested: **24CZ2-120VHE-UNV-L930-CD2-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: P388631
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-L930-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

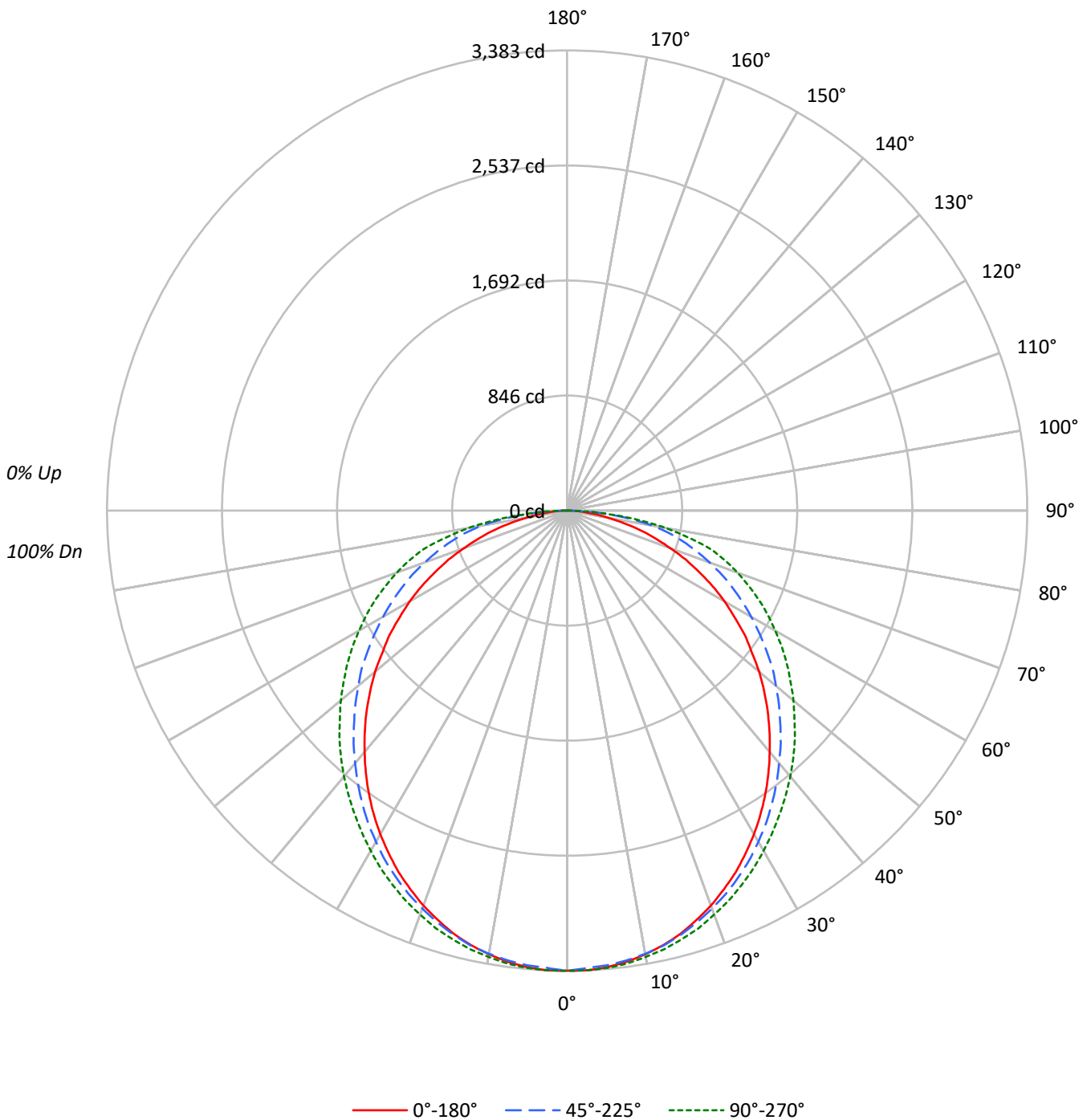
Lumens per Lamp: N/A
Luminaire Lumens: 10075.0 lumens
Efficiency: N/A
Efficacy: 120.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	4551	4551	4551
5°	4551	4532	4560
10°	4525	4520	4553
15°	4487	4496	4543
20°	4425	4458	4526
25°	4353	4418	4508
30°	4268	4367	4488
35°	4175	4313	4474
40°	4069	4258	4483
45°	3967	4216	4504
50°	3857	4195	4547
55°	3739	4188	4630
60°	3592	4207	4750
65°	3404	4271	4956
70°	3161	4378	5238
75°	2884	4597	5681
80°	2371	4950	5680
85°	1817	4568	4880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.9	3.2
10°-20°	913.3	9.1
20°-30°	1374.4	13.6
30°-40°	1647.1	16.3
40°-50°	1716.4	17.0
50°-60°	1597.0	15.9
60°-70°	1315.3	13.1
70°-80°	895.8	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°	2607.7	25.9
0°-40°	4254.8	42.2
0°-60°	7568.2	75.1
0°-90°	10075.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10075.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3383	3383	3383	3383	3383	
5°	3369	3369	3356	3373	3376	320
15°	3221	3225	3228	3258	3262	907
25°	2932	2946	2976	3026	3036	1350
35°	2542	2572	2626	2697	2724	1589
45°	2085	2128	2216	2327	2367	1608
55°	1594	1648	1786	1927	1974	1421
65°	1069	1160	1342	1500	1557	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°	3382.6	3382.6	3382.6	3382.6	3382.6
2.5°	3382.6	3382.6	3365.8	3382.6	3382.6
5°	3369.2	3369.2	3355.7	3372.6	3375.9
7.5°	3345.7	3349.0	3335.6	3355.7	3359.1
10°	3312.0	3315.4	3308.7	3328.8	3332.2
12.5°	3271.7	3275.0	3275.0	3298.6	3301.9
15°	3221.2	3224.6	3228.0	3258.2	3261.6
17.5°	3157.4	3167.4	3174.2	3211.2	3217.9
20°	3090.1	3100.2	3113.6	3154.0	3160.7
22.5°	3012.8	3026.2	3049.8	3093.5	3103.6
25°	2932.1	2945.5	2975.8	3026.2	3036.3
27.5°	2841.3	2861.5	2898.5	2952.2	2965.7
30°	2747.1	2767.3	2811.0	2868.2	2888.4
32.5°	2646.3	2673.2	2723.6	2787.5	2807.7
35°	2542.0	2572.3	2626.1	2696.7	2723.6
37.5°	2431.1	2464.7	2528.6	2605.9	2639.5
40°	2316.7	2357.1	2424.3	2515.1	2552.1
42.5°	2202.4	2239.4	2323.5	2421.0	2461.3
45°	2084.7	2128.4	2215.9	2326.8	2367.2
47.5°	1963.7	2007.4	2111.6	2229.3	2266.3
50°	1842.6	1886.3	2004.0	2128.4	2172.2
52.5°	1711.5	1768.7	1903.2	2027.6	2071.3
55°	1593.8	1647.6	1785.5	1926.7	1973.8
57.5°	1459.3	1523.2	1674.5	1822.5	1872.9
60°	1334.9	1402.2	1563.5	1714.9	1765.3
62.5°	1207.1	1281.1	1452.6	1607.3	1664.4
65°	1069.3	1160.1	1341.6	1499.7	1556.8
67.5°	944.9	1039.0	1230.7	1392.1	1442.5
70°	803.6	918.0	1113.0	1274.4	1331.5
72.5°	682.6	796.9	1002.0	1160.1	1217.2
75°	554.8	679.2	884.3	1042.4	1092.8
77.5°	427.0	564.9	770.0	891.1	907.9
80°	306.0	450.6	638.9	709.5	733.0
82.5°	215.2	346.3	470.7	517.8	531.3
85°	117.7	228.6	295.9	316.1	316.1
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)