

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: P391015

Luminaire Tested: **24CZ2-120VHE-RDP-UNV-L950-CD2-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: P391015
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-120VHE-RDP-UNV-L950-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7354.1 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

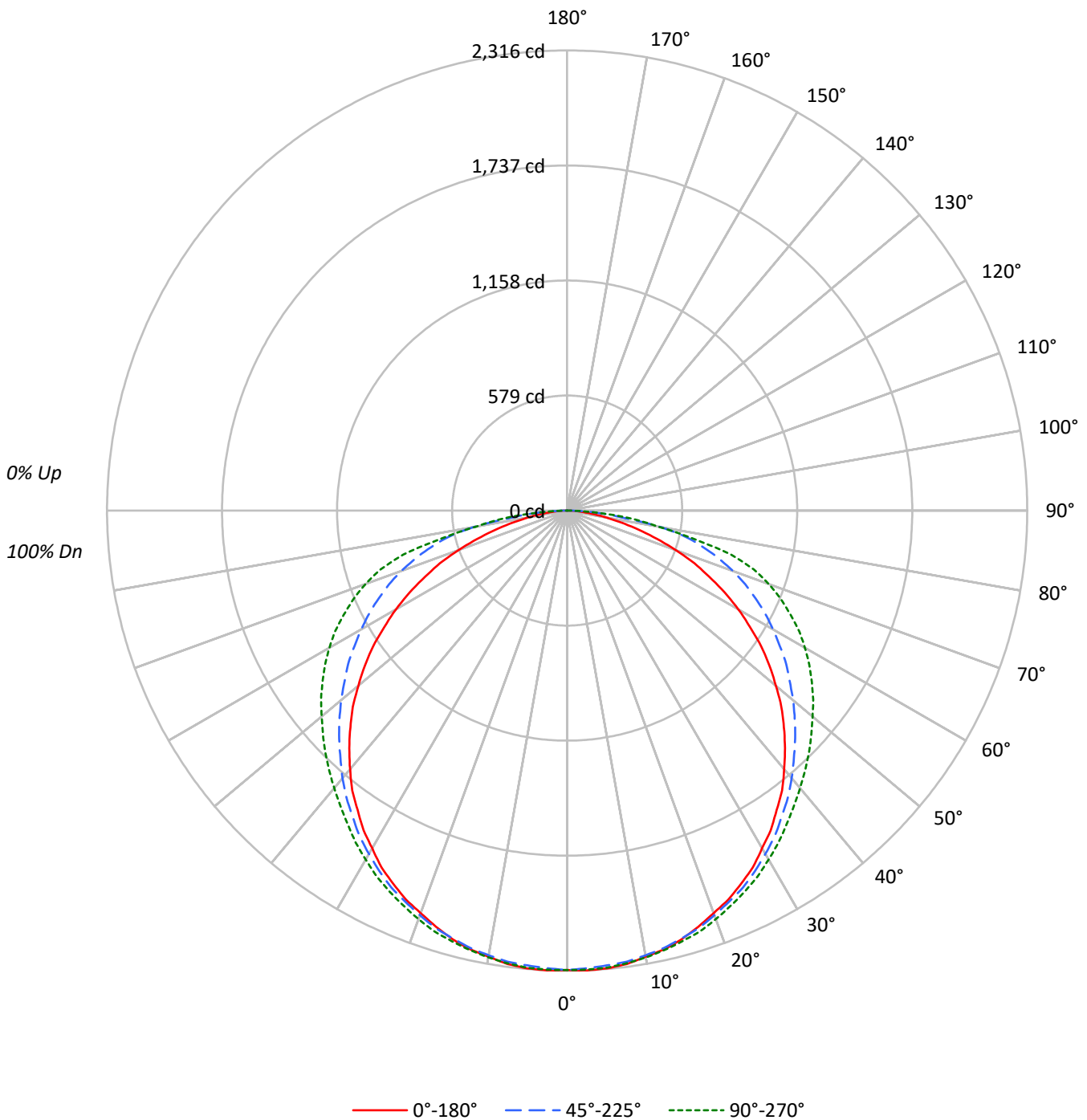
Input Watts (W): 83.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3112	3112	3112
5°	3124	3104	3119
10°	3115	3105	3120
15°	3110	3105	3125
20°	3087	3102	3134
25°	3076	3108	3141
30°	3049	3100	3151
35°	3020	3092	3164
40°	2986	3088	3204
45°	2936	3089	3276
50°	2871	3108	3375
55°	2798	3157	3525
60°	2680	3220	3720
65°	2508	3333	3948
70°	2282	3487	4247
75°	1934	3679	4438
80°	1526	3703	3590
85°	1127	2816	3154



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.4	3.0
10°-20°	631.4	8.6
20°-30°	965.5	13.1
30°-40°	1180.3	16.0
40°-50°	1257.9	17.1
50°-60°	1202.8	16.4
60°-70°	1018.9	13.9
70°-80°	684.8	9.3
80°-90°	193.2	2.6
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°	1816.2	24.7
0°-40°	2996.5	40.7
0°-60°	5457.2	74.2
0°-90°	7354.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7354.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2313	2313	2313	2313	2313	
5°	2313	2309	2298	2309	2309	220
15°	2232	2232	2229	2247	2243	629
25°	2072	2079	2094	2112	2116	955
35°	1838	1853	1882	1919	1926	1152
45°	1543	1568	1623	1692	1722	1190
55°	1193	1237	1346	1452	1503	1062
65°	788	868	1047	1186	1240	782
75°	372	507	708	828	854	398
85°	73	150	182	197	204	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2312.7	2312.7	2312.7	2312.7	2312.7
2.5°	2316.3	2316.3	2305.4	2312.7	2312.7
5°	2312.7	2309.0	2298.1	2309.0	2309.0
7.5°	2301.7	2298.1	2290.8	2301.7	2298.1
10°	2279.8	2279.8	2272.5	2283.5	2283.5
12.5°	2261.6	2257.9	2254.3	2268.9	2265.2
15°	2232.4	2232.4	2228.8	2247.0	2243.3
17.5°	2195.9	2199.6	2203.2	2217.8	2221.5
20°	2155.8	2163.1	2166.7	2188.6	2188.6
22.5°	2119.3	2123.0	2130.3	2152.2	2152.2
25°	2071.9	2079.2	2093.8	2112.0	2115.7
27.5°	2024.5	2028.1	2046.4	2071.9	2075.6
30°	1962.5	1973.4	1995.3	2024.5	2028.1
32.5°	1907.8	1918.7	1944.2	1973.4	1980.7
35°	1838.5	1853.0	1882.2	1918.7	1926.0
37.5°	1776.4	1787.4	1823.9	1864.0	1874.9
40°	1699.8	1721.7	1758.2	1805.6	1823.9
42.5°	1623.2	1645.1	1688.9	1750.9	1772.8
45°	1543.0	1568.5	1623.2	1692.5	1721.7
47.5°	1462.7	1491.9	1553.9	1634.2	1667.0
50°	1371.5	1408.0	1484.6	1575.8	1612.3
52.5°	1284.0	1327.8	1411.7	1513.8	1561.2
55°	1192.8	1236.6	1346.0	1451.8	1502.9
57.5°	1090.7	1149.0	1269.4	1389.8	1444.5
60°	995.8	1050.5	1196.5	1327.8	1382.5
62.5°	893.7	966.6	1123.5	1262.1	1316.8
65°	787.9	868.2	1046.9	1185.5	1240.2
67.5°	693.1	780.6	970.3	1108.9	1163.6
70°	580.0	689.4	886.4	1025.0	1079.7
72.5°	474.2	594.6	798.9	933.8	984.9
75°	372.1	507.0	707.7	828.0	853.6
77.5°	277.2	419.5	612.8	663.9	645.6
80°	197.0	335.6	477.9	452.3	463.3
82.5°	127.7	255.3	295.5	335.6	346.5
85°	73.0	149.6	182.4	197.0	204.3
87.5°	32.8	54.7	73.0	73.0	69.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)