

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: P391077

Luminaire Tested: **24CZ2-150VHE-HRP-UNV-L930-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: P391077
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: 24CZ2-150VHE-HRP-UNV-L930-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10253.8 lumens
Efficiency: N/A
Efficacy: 98.4 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

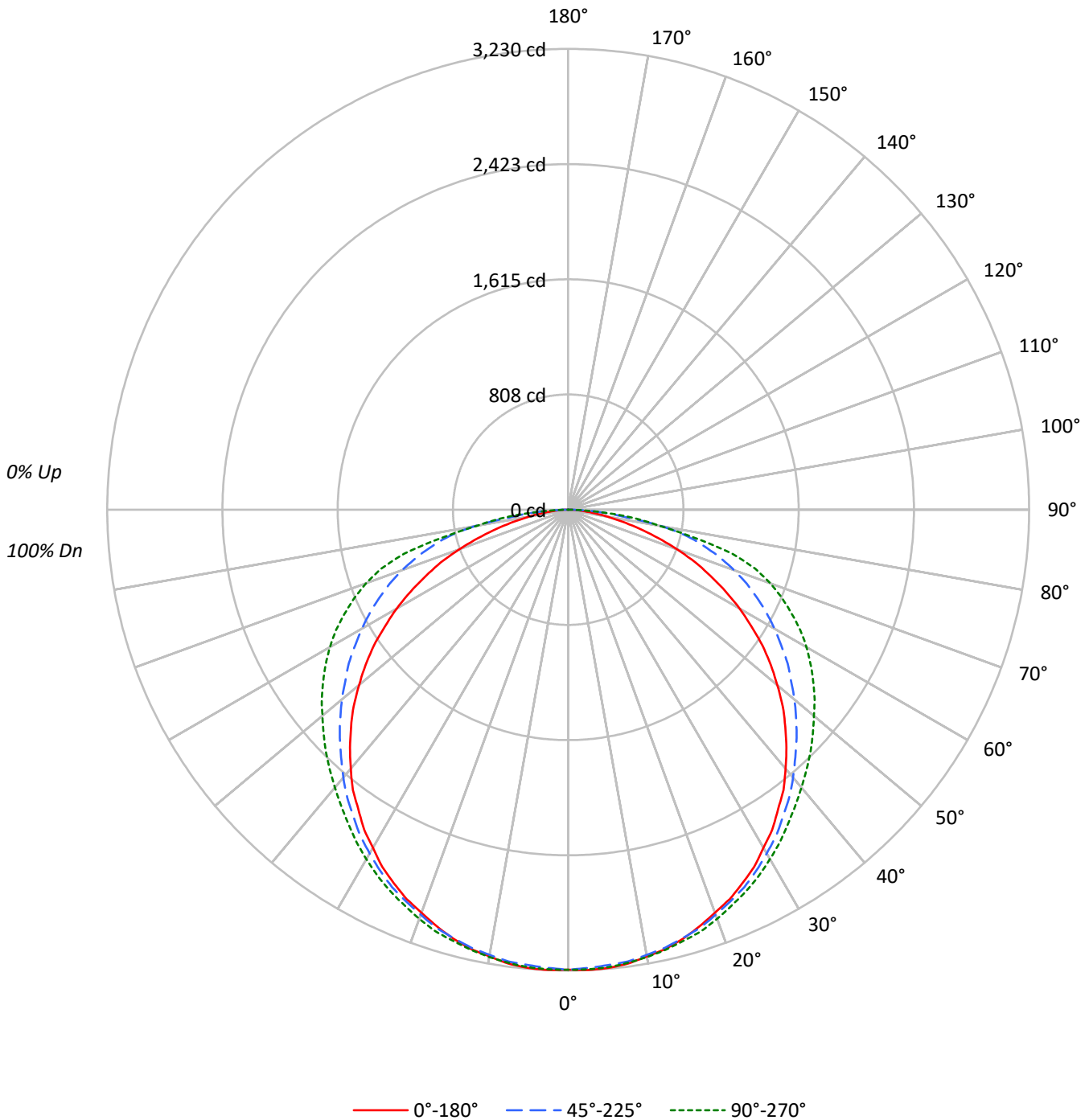
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4339	4339	4339
5°	4355	4328	4348
10°	4343	4329	4350
15°	4336	4329	4357
20°	4304	4326	4369
25°	4289	4334	4379
30°	4251	4322	4393
35°	4210	4311	4411
40°	4163	4306	4467
45°	4094	4307	4568
50°	4003	4333	4706
55°	3901	4402	4915
60°	3736	4489	5187
65°	3498	4647	5505
70°	3181	4862	5923
75°	2697	5129	6187
80°	2128	5163	5005
85°	1570	3926	4397



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.9	3.0
10°-20°	880.3	8.6
20°-30°	1346.2	13.1
30°-40°	1645.7	16.0
40°-50°	1754.0	17.1
50°-60°	1677.0	16.4
60°-70°	1420.7	13.9
70°-80°	954.8	9.3
80°-90°	269.3	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°	2532.4	24.7
0°-40°	4178.0	40.7
0°-60°	7609.0	74.2
0°-90°	10253.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10253.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3224	3224	3224	3224	3224	
5°	3224	3219	3204	3219	3219	306
15°	3113	3113	3108	3133	3128	878
25°	2889	2899	2919	2945	2950	1331
35°	2563	2584	2624	2675	2685	1606
45°	2151	2187	2263	2360	2401	1659
55°	1663	1724	1877	2024	2095	1481
65°	1099	1210	1460	1653	1729	1091
75°	519	707	987	1154	1190	555
85°	102	208	254	275	285	126
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3224.5	3224.5	3224.5	3224.5	3224.5
2.5°	3229.6	3229.6	3214.4	3224.5	3224.5
5°	3224.5	3219.4	3204.2	3219.4	3219.4
7.5°	3209.3	3204.2	3194.0	3209.3	3204.2
10°	3178.8	3178.8	3168.6	3183.8	3183.8
12.5°	3153.3	3148.2	3143.2	3163.5	3158.4
15°	3112.6	3112.6	3107.5	3133.0	3127.9
17.5°	3061.8	3066.9	3071.9	3092.3	3097.4
20°	3005.8	3016.0	3021.1	3051.6	3051.6
22.5°	2955.0	2960.1	2970.2	3000.7	3000.7
25°	2888.9	2899.0	2919.4	2944.8	2949.9
27.5°	2822.7	2827.8	2853.2	2888.9	2893.9
30°	2736.3	2751.5	2782.0	2822.7	2827.8
32.5°	2660.0	2675.2	2710.8	2751.5	2761.7
35°	2563.3	2583.7	2624.4	2675.2	2685.4
37.5°	2476.9	2492.1	2543.0	2598.9	2614.2
40°	2370.1	2400.6	2451.5	2517.6	2543.0
42.5°	2263.3	2293.8	2354.8	2441.3	2471.8
45°	2151.4	2187.0	2263.3	2359.9	2400.6
47.5°	2039.5	2080.2	2166.6	2278.5	2324.3
50°	1912.3	1963.2	2070.0	2197.2	2248.0
52.5°	1790.3	1851.3	1968.3	2110.7	2176.8
55°	1663.1	1724.2	1876.7	2024.2	2095.4
57.5°	1520.7	1602.1	1769.9	1937.8	2014.1
60°	1388.5	1464.8	1668.2	1851.3	1927.6
62.5°	1246.1	1347.8	1566.5	1759.8	1836.0
65°	1098.6	1210.5	1459.7	1653.0	1729.2
67.5°	966.3	1088.4	1352.9	1546.1	1622.4
70°	808.7	961.3	1235.9	1429.2	1505.5
72.5°	661.2	829.0	1113.8	1302.0	1373.2
75°	518.8	707.0	986.7	1154.5	1190.1
77.5°	386.5	584.9	854.4	925.7	900.2
80°	274.6	467.9	666.3	630.7	645.9
82.5°	178.0	356.0	412.0	467.9	483.2
85°	101.7	208.5	254.3	274.6	284.8
87.5°	45.8	76.3	101.7	101.7	96.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)