

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: P391039

Luminaire Tested: **24CZ2-130VHE-HRP-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: P391039
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: 24CZ2-130VHE-HRP-UNV-L950-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10087.2 lumens
Efficiency: N/A
Efficacy: 111.2 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

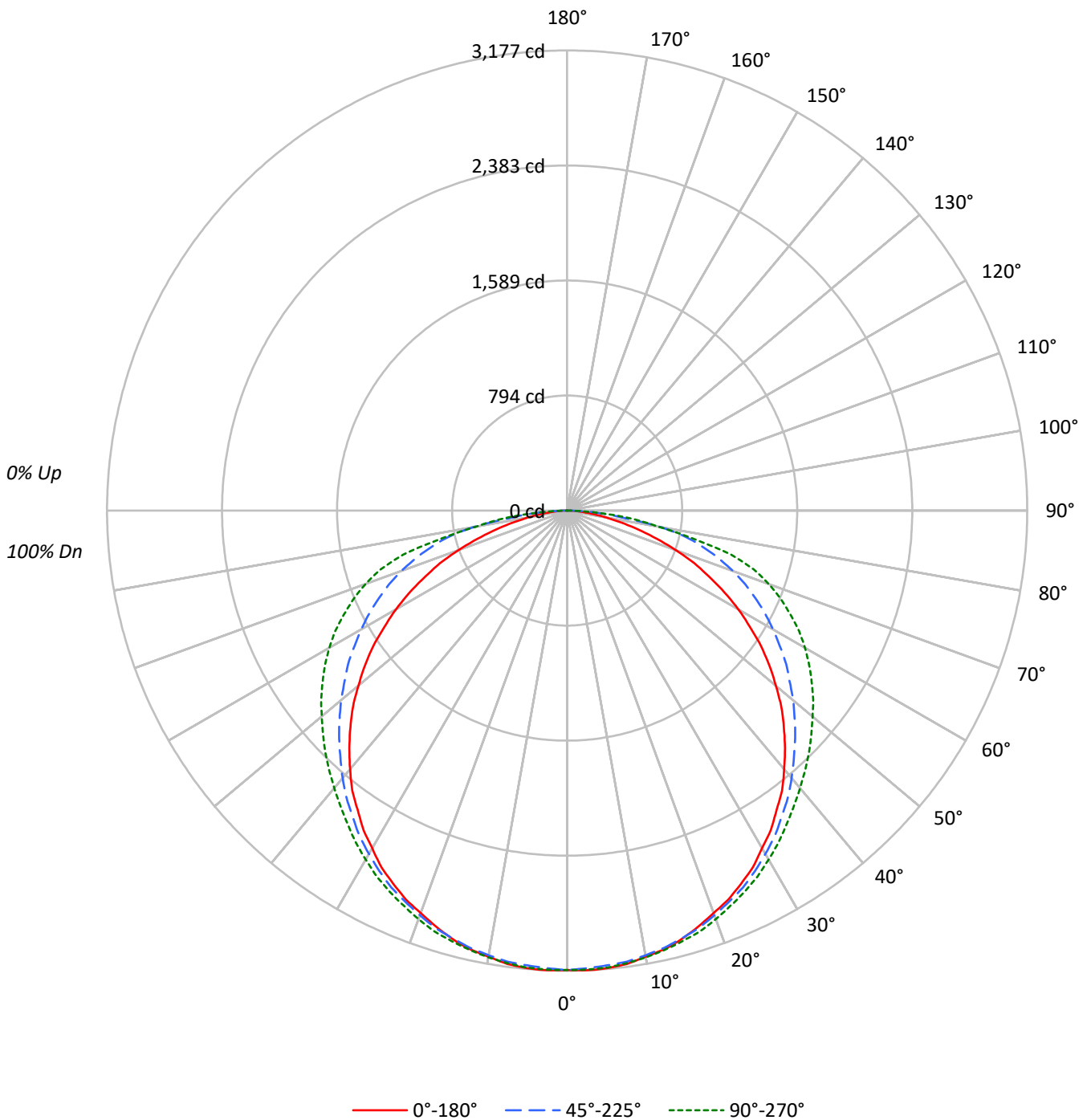
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4268	4268	4268
5°	4284	4257	4278
10°	4272	4259	4279
15°	4265	4258	4286
20°	4234	4255	4298
25°	4219	4264	4308
30°	4182	4252	4322
35°	4142	4241	4339
40°	4095	4236	4394
45°	4027	4237	4494
50°	3938	4263	4629
55°	3838	4331	4836
60°	3676	4416	5103
65°	3441	4572	5416
70°	3129	4783	5826
75°	2653	5046	6086
80°	2094	5078	4923
85°	1545	3863	4326



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.9	3.0
10°-20°	866.0	8.6
20°-30°	1324.3	13.1
30°-40°	1618.9	16.0
40°-50°	1725.5	17.1
50°-60°	1649.8	16.4
60°-70°	1397.6	13.9
70°-80°	939.3	9.3
80°-90°	265.0	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°	2491.2	24.7
0°-40°	4110.2	40.7
0°-60°	7485.4	74.2
0°-90°	10087.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10087.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3172	3172	3172	3172	3172	
5°	3172	3167	3152	3167	3167	301
15°	3062	3062	3057	3082	3077	863
25°	2842	2852	2872	2897	2902	1310
35°	2522	2542	2582	2632	2642	1580
45°	2116	2151	2226	2322	2362	1632
55°	1636	1696	1846	1991	2061	1457
65°	1081	1191	1436	1626	1701	1073
75°	510	696	971	1136	1171	546
85°	100	205	250	270	280	124
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3172.1	3172.1	3172.1	3172.1	3172.1
2.5°	3177.1	3177.1	3162.1	3172.1	3172.1
5°	3172.1	3167.1	3152.1	3167.1	3167.1
7.5°	3157.1	3152.1	3142.1	3157.1	3152.1
10°	3127.1	3127.1	3117.1	3132.1	3132.1
12.5°	3102.1	3097.1	3092.1	3112.1	3107.1
15°	3062.1	3062.1	3057.1	3082.1	3077.1
17.5°	3012.0	3017.0	3022.0	3042.0	3047.1
20°	2957.0	2967.0	2972.0	3002.0	3002.0
22.5°	2907.0	2912.0	2922.0	2952.0	2952.0
25°	2841.9	2851.9	2871.9	2897.0	2902.0
27.5°	2776.9	2781.9	2806.9	2841.9	2846.9
30°	2691.8	2706.8	2736.8	2776.9	2781.9
32.5°	2616.8	2631.8	2666.8	2706.8	2716.8
35°	2521.7	2541.7	2581.7	2631.8	2641.8
37.5°	2436.6	2451.7	2501.7	2556.7	2571.7
40°	2331.6	2361.6	2411.6	2476.7	2501.7
42.5°	2226.5	2256.5	2316.6	2401.6	2431.6
45°	2116.4	2151.4	2226.5	2321.6	2361.6
47.5°	2006.4	2046.4	2131.4	2241.5	2286.5
50°	1881.3	1931.3	2036.4	2161.5	2211.5
52.5°	1761.2	1821.2	1936.3	2076.4	2141.4
55°	1636.1	1696.1	1846.2	1991.3	2061.4
57.5°	1496.0	1576.1	1741.2	1906.3	1981.3
60°	1365.9	1441.0	1641.1	1821.2	1896.3
62.5°	1225.8	1325.9	1541.0	1731.2	1806.2
65°	1080.7	1190.8	1436.0	1626.1	1701.1
67.5°	950.6	1070.7	1330.9	1521.0	1596.1
70°	795.5	945.6	1215.8	1405.9	1481.0
72.5°	650.4	815.5	1095.7	1280.9	1350.9
75°	510.3	695.5	970.7	1135.8	1170.8
77.5°	380.3	575.4	840.6	910.6	885.6
80°	270.2	460.3	655.4	620.4	635.4
82.5°	175.1	350.2	405.3	460.3	475.3
85°	100.1	205.1	250.2	270.2	280.2
87.5°	45.0	75.1	100.1	100.1	95.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)