

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: P391086

Luminaire Tested: **24CZ2-150VHE-HRP-UNV-L950-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: P391086
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-L950-CD2-SDWPD1-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: 11268.4 lumens
Efficiency: N/A
Efficacy: 108.1 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

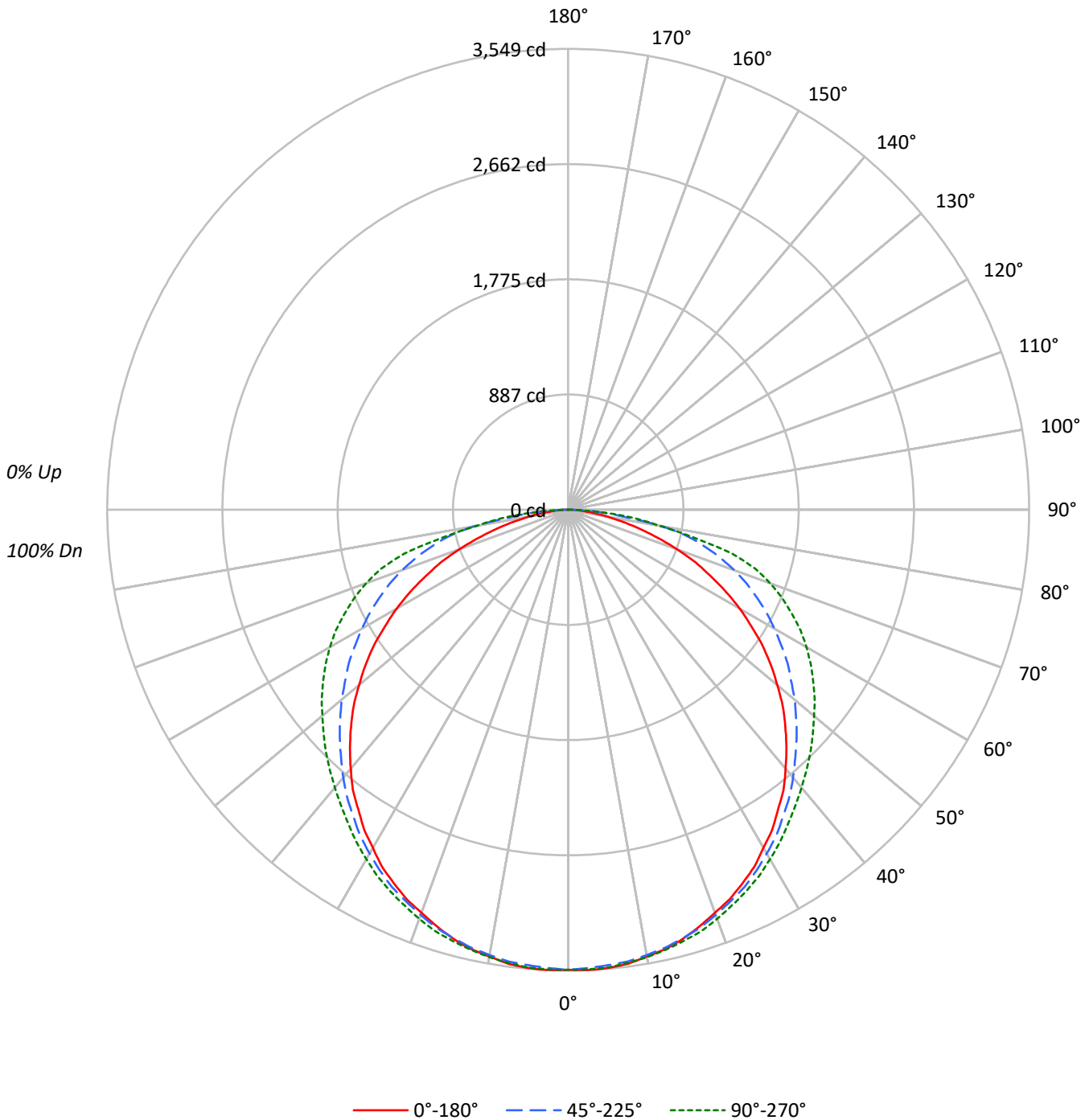
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4768	4768	4768
5°	4786	4756	4779
10°	4773	4757	4780
15°	4765	4757	4788
20°	4730	4754	4802
25°	4713	4763	4813
30°	4672	4750	4828
35°	4627	4737	4847
40°	4575	4732	4908
45°	4499	4733	5020
50°	4399	4762	5171
55°	4287	4838	5402
60°	4106	4933	5700
65°	3844	5107	6050
70°	3496	5343	6508
75°	2964	5637	6799
80°	2338	5673	5500
85°	1726	4315	4832



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	336.1	3.0
10°-20°	967.4	8.6
20°-30°	1479.4	13.1
30°-40°	1808.5	16.0
40°-50°	1927.5	17.1
50°-60°	1843.0	16.4
60°-70°	1561.2	13.9
70°-80°	1049.3	9.3
80°-90°	296.0	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°	2782.9	24.7
0°-40°	4591.5	40.7
0°-60°	8361.9	74.2
0°-90°	11268.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11268.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3544	3544	3544	3544	3544	
5°	3544	3538	3521	3538	3538	337
15°	3421	3421	3415	3443	3437	964
25°	3175	3186	3208	3236	3242	1463
35°	2817	2839	2884	2940	2951	1765
45°	2364	2403	2487	2593	2638	1824
55°	1828	1895	2062	2224	2303	1628
65°	1207	1330	1604	1816	1900	1199
75°	570	777	1084	1269	1308	610
85°	112	229	280	302	313	138
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3543.6	3543.6	3543.6	3543.6	3543.6
2.5°	3549.2	3549.2	3532.4	3543.6	3543.6
5°	3543.6	3538.0	3521.2	3538.0	3538.0
7.5°	3526.8	3521.2	3510.1	3526.8	3521.2
10°	3493.3	3493.3	3482.1	3498.9	3498.9
12.5°	3465.3	3459.8	3454.2	3476.5	3470.9
15°	3420.6	3420.6	3415.0	3443.0	3437.4
17.5°	3364.7	3370.3	3375.9	3398.3	3403.9
20°	3303.3	3314.4	3320.0	3353.6	3353.6
22.5°	3247.4	3252.9	3264.1	3297.7	3297.7
25°	3174.7	3185.9	3208.2	3236.2	3241.8
27.5°	3102.0	3107.6	3135.6	3174.7	3180.3
30°	3007.0	3023.8	3057.3	3102.0	3107.6
32.5°	2923.2	2940.0	2979.1	3023.8	3035.0
35°	2817.0	2839.3	2884.1	2940.0	2951.1
37.5°	2722.0	2738.7	2794.6	2856.1	2872.9
40°	2604.6	2638.1	2694.0	2766.7	2794.6
42.5°	2487.2	2520.8	2587.8	2682.8	2716.4
45°	2364.3	2403.4	2487.2	2593.4	2638.1
47.5°	2241.3	2286.0	2381.0	2504.0	2554.3
50°	2101.6	2157.5	2274.8	2414.6	2470.5
52.5°	1967.4	2034.5	2163.0	2319.5	2392.2
55°	1827.7	1894.8	2062.4	2224.5	2302.8
57.5°	1671.2	1760.6	1945.1	2129.5	2213.3
60°	1525.9	1609.7	1833.3	2034.5	2118.3
62.5°	1369.4	1481.2	1721.5	1933.9	2017.7
65°	1207.3	1330.2	1604.1	1816.5	1900.3
67.5°	1062.0	1196.1	1486.7	1699.1	1783.0
70°	888.7	1056.4	1358.2	1570.6	1654.4
72.5°	726.6	911.0	1224.0	1430.9	1509.1
75°	570.1	776.9	1084.3	1268.8	1307.9
77.5°	424.8	642.8	939.0	1017.2	989.3
80°	301.8	514.2	732.2	693.1	709.8
82.5°	195.6	391.2	452.7	514.2	531.0
85°	111.8	229.2	279.5	301.8	313.0
87.5°	50.3	83.8	111.8	111.8	106.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)