

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: P388393

Luminaire Tested: **24CZ2-150VHE-SQR-UNV-L930-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: P388393
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-SQR-UNV-L930-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11743.0 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

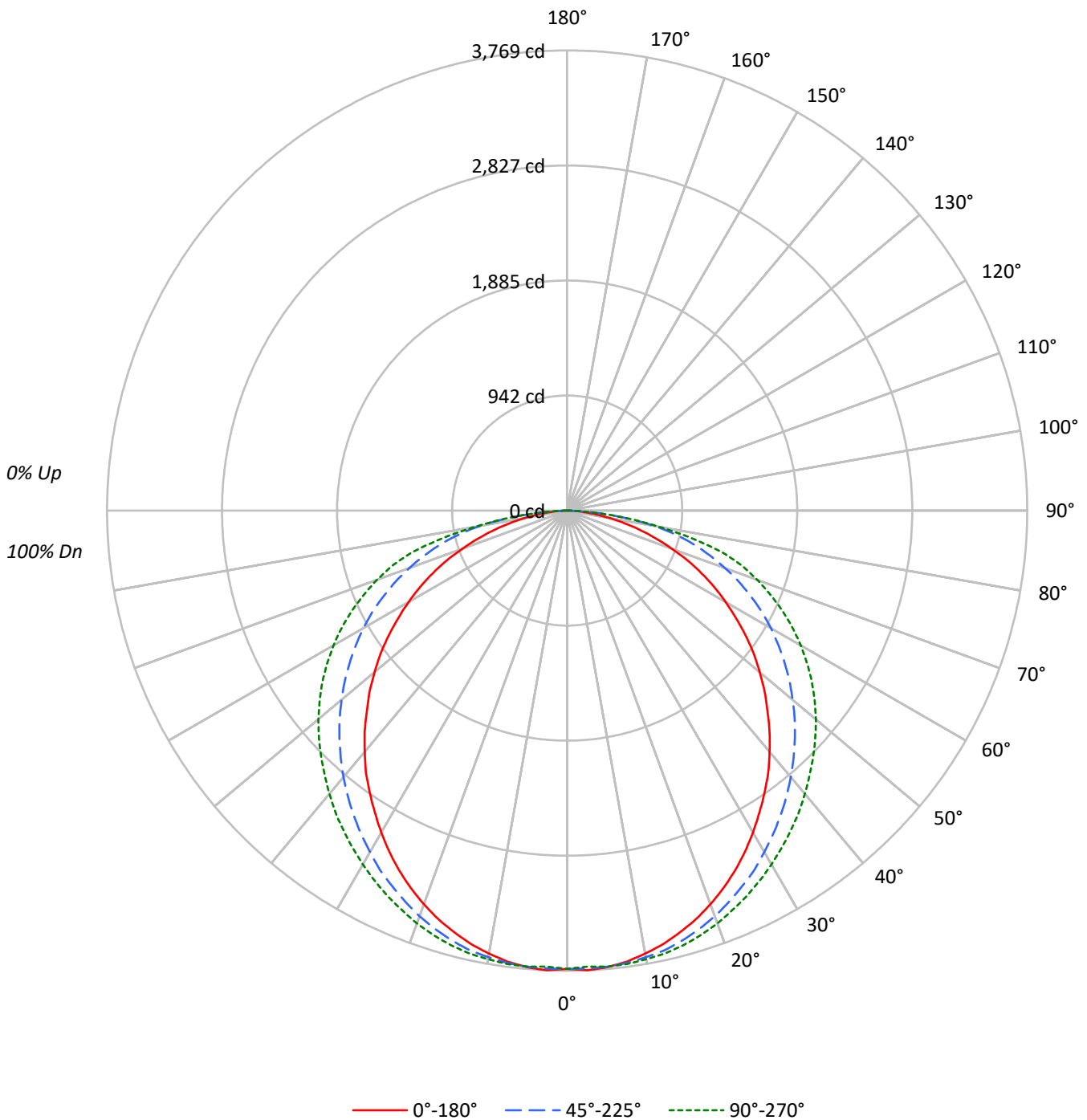
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5050	5050	5050
5°	5070	5065	5065
10°	5033	5075	5097
15°	4980	5077	5131
20°	4914	5064	5152
25°	4830	5037	5170
30°	4729	5018	5199
35°	4630	5006	5248
40°	4529	5006	5319
45°	4412	5018	5423
50°	4310	5049	5568
55°	4184	5103	5740
60°	4038	5186	5948
65°	3864	5284	6197
70°	3585	5415	6514
75°	3245	5604	6814
80°	2734	5618	5859
85°	2095	4250	4250



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.3	3.0
10°-20°	1025.1	8.7
20°-30°	1557.1	13.3
30°-40°	1894.0	16.1
40°-50°	2016.5	17.2
50°-60°	1920.6	16.4
60°-70°	1606.2	13.7
70°-80°	1070.9	9.1
80°-90°	296.3	2.5
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°	2938.5	25.0
0°-40°	4832.5	41.2
0°-60°	8769.7	74.7
0°-90°	11743.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11743.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3754	3754	3754	3754	3754	
5°	3754	3730	3750	3750	3750	356
15°	3575	3583	3645	3672	3684	1008
25°	3253	3296	3393	3451	3482	1498
35°	2819	2900	3048	3149	3195	1764
45°	2319	2443	2637	2784	2850	1793
55°	1784	1939	2175	2365	2447	1595
65°	1214	1392	1660	1865	1947	1199
75°	624	822	1078	1260	1311	661
85°	136	252	275	271	275	164
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3753.6	3753.6	3753.6	3753.6	3753.6
2.5°	3769.1	3742.0	3753.6	3753.6	3738.1
5°	3753.6	3730.4	3749.8	3749.8	3749.8
7.5°	3726.5	3707.1	3738.1	3745.9	3745.9
10°	3683.8	3676.1	3714.9	3726.5	3730.4
12.5°	3637.3	3633.4	3687.7	3703.2	3714.9
15°	3575.3	3583.0	3645.1	3672.2	3683.8
17.5°	3509.3	3524.8	3594.6	3633.4	3645.1
20°	3431.8	3455.0	3536.5	3575.3	3598.5
22.5°	3346.5	3381.4	3466.7	3513.2	3540.4
25°	3253.4	3296.1	3393.0	3451.2	3482.2
27.5°	3152.6	3206.9	3319.3	3385.3	3416.3
30°	3044.0	3106.1	3230.1	3307.7	3346.5
32.5°	2931.6	3005.2	3141.0	3226.3	3272.8
35°	2819.1	2900.5	3047.9	3148.7	3195.2
37.5°	2706.6	2788.1	2950.9	3059.5	3117.7
40°	2578.7	2675.6	2850.1	2970.3	3028.5
42.5°	2454.6	2559.3	2745.4	2877.3	2939.3
45°	2318.9	2443.0	2636.9	2784.2	2850.1
47.5°	2194.8	2318.9	2528.3	2683.4	2757.1
50°	2059.1	2190.9	2411.9	2582.6	2660.1
52.5°	1927.2	2062.9	2295.6	2477.9	2555.4
55°	1783.8	1938.9	2175.4	2365.4	2446.8
57.5°	1640.3	1807.0	2051.3	2249.1	2330.5
60°	1500.7	1671.3	1927.2	2125.0	2210.3
62.5°	1361.1	1531.7	1799.3	2000.9	2082.3
65°	1213.7	1392.1	1659.7	1865.2	1946.6
67.5°	1066.4	1252.5	1520.1	1725.6	1803.1
70°	911.3	1109.0	1376.6	1578.2	1655.8
72.5°	767.8	965.6	1229.2	1427.0	1500.7
75°	624.3	822.1	1078.0	1260.3	1310.7
77.5°	484.7	682.5	911.3	1031.5	1043.1
80°	352.9	539.0	725.1	760.0	756.2
82.5°	236.5	403.3	500.2	504.1	515.7
85°	135.7	252.1	275.3	271.4	275.3
87.5°	54.3	89.2	77.6	58.2	58.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)