

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: P389984

Luminaire Tested: **24CZ2-90VHE-S-UNV-L950-CD1-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: P389984
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-90VHE-S-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8624.9 lumens
Efficiency: N/A
Efficacy: 139.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

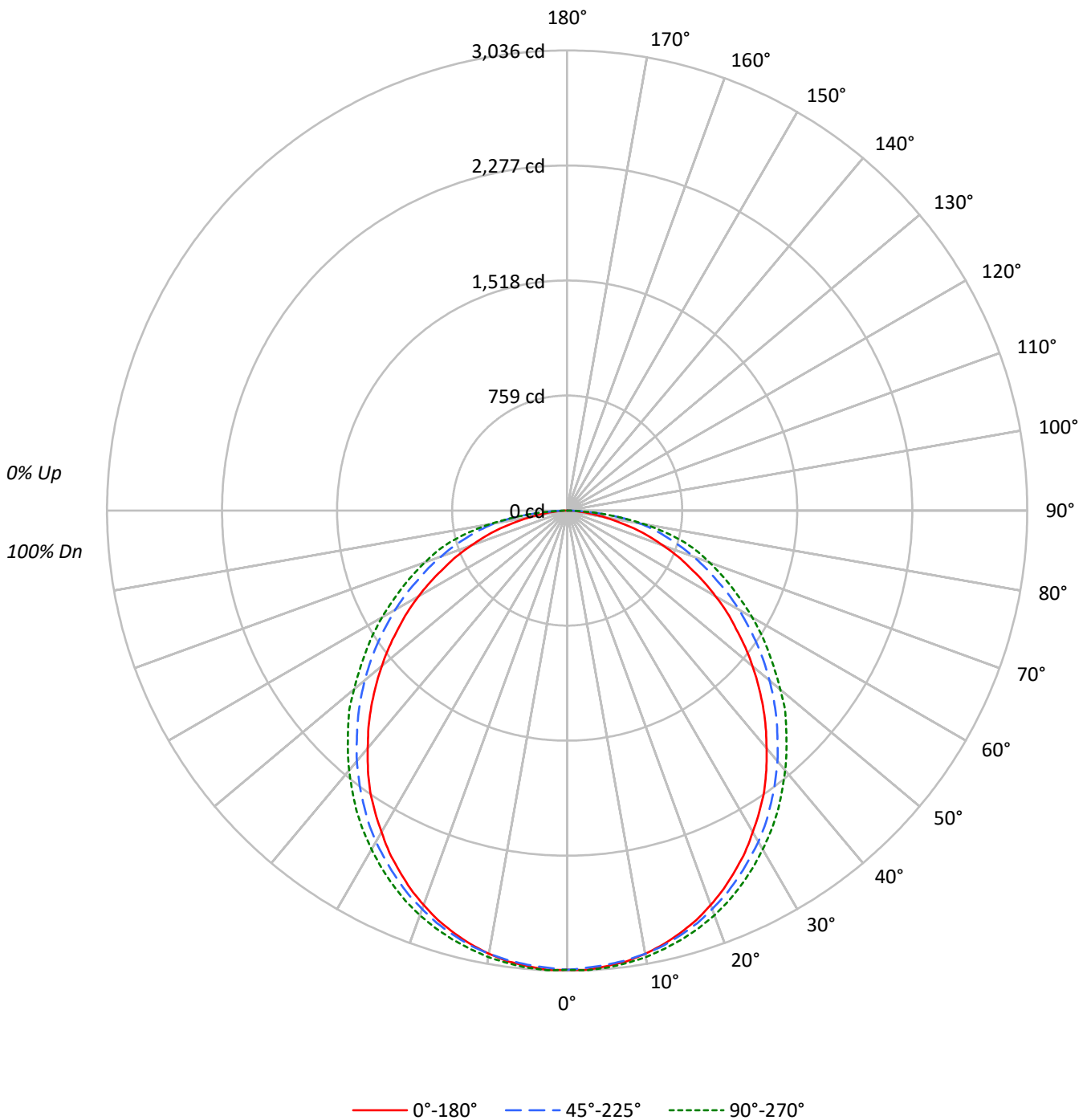
Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90		93	90	88		89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4077	4077	4077
5°	4074	4063	4089
10°	4057	4057	4087
15°	4018	4037	4079
20°	3966	4005	4068
25°	3892	3965	4043
30°	3805	3920	4009
35°	3721	3856	3978
40°	3594	3792	3931
45°	3477	3717	3889
50°	3343	3647	3842
55°	3194	3580	3804
60°	3045	3524	3797
65°	2852	3463	3820
70°	2640	3481	3923
75°	2364	3546	4144
80°	1911	3757	4055
85°	1437	3299	3214



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.8	3.3
10°-20°	819.6	9.5
20°-30°	1232.1	14.3
30°-40°	1467.6	17.0
40°-50°	1502.0	17.4
50°-60°	1352.3	15.7
60°-70°	1062.0	12.3
70°-80°	689.2	8.0
80°-90°	213.2	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°	2338.6	27.1
0°-40°	3806.2	44.1
0°-60°	6660.5	77.2
0°-90°	8624.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8624.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3030	3030	3030	3030	3030	
5°	3016	3022	3008	3024	3027	287
15°	2885	2893	2898	2923	2929	813
25°	2622	2644	2671	2715	2723	1208
35°	2266	2293	2348	2405	2422	1413
45°	1827	1871	1953	2027	2044	1409
55°	1362	1422	1526	1605	1622	1221
65°	896	964	1088	1178	1200	892
75°	455	542	682	775	797	481
85°	93	173	214	208	208	112
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3030.0	3030.0	3030.0	3030.0	3030.0
2.5°	3032.7	3032.7	3019.0	3032.7	3035.5
5°	3016.3	3021.8	3008.1	3024.5	3027.2
7.5°	2999.8	2999.8	2991.6	3008.1	3010.8
10°	2969.7	2972.5	2969.7	2988.9	2991.6
12.5°	2931.4	2936.8	2939.6	2958.8	2961.5
15°	2884.8	2893.0	2898.5	2923.1	2928.6
17.5°	2832.7	2841.0	2854.7	2882.0	2887.5
20°	2769.7	2780.7	2797.1	2832.7	2841.0
22.5°	2701.2	2712.2	2739.6	2772.5	2786.2
25°	2621.8	2643.7	2671.1	2714.9	2723.1
27.5°	2542.3	2561.5	2597.1	2643.7	2654.7
30°	2449.2	2479.3	2523.2	2569.7	2580.7
32.5°	2358.8	2388.9	2441.0	2490.3	2504.0
35°	2265.6	2293.0	2347.8	2405.4	2421.8
37.5°	2158.8	2194.4	2254.7	2312.2	2328.6
40°	2046.5	2090.3	2158.8	2219.1	2238.2
42.5°	1939.6	1986.2	2054.7	2120.4	2142.4
45°	1827.3	1871.1	1953.3	2027.3	2043.7
47.5°	1712.2	1761.6	1849.2	1923.2	1950.6
50°	1597.2	1649.2	1742.4	1819.1	1835.5
52.5°	1482.1	1536.9	1635.5	1717.7	1725.9
55°	1361.6	1421.8	1526.0	1605.4	1621.8
57.5°	1252.0	1304.0	1416.4	1498.6	1517.7
60°	1131.4	1189.0	1309.5	1386.2	1410.9
62.5°	1016.4	1076.7	1202.7	1279.4	1301.3
65°	895.8	964.3	1087.6	1178.0	1199.9
67.5°	791.7	857.5	989.0	1076.7	1098.6
70°	671.2	745.2	884.9	975.3	997.2
72.5°	567.1	643.8	783.5	871.2	904.1
75°	454.8	542.4	682.2	775.3	797.2
77.5°	345.2	446.6	589.0	660.2	660.2
80°	246.6	353.4	484.9	517.8	523.3
82.5°	161.6	265.7	358.9	356.1	356.1
85°	93.1	172.6	213.7	208.2	208.2
87.5°	35.6	71.2	76.7	76.7	74.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)