

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: P389912

Luminaire Tested: **24CZ2-75VHE-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: P389912
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: 24CZ2-75VHE-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: 7299.6 lumens
Efficiency: N/A
Efficacy: 146.3 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

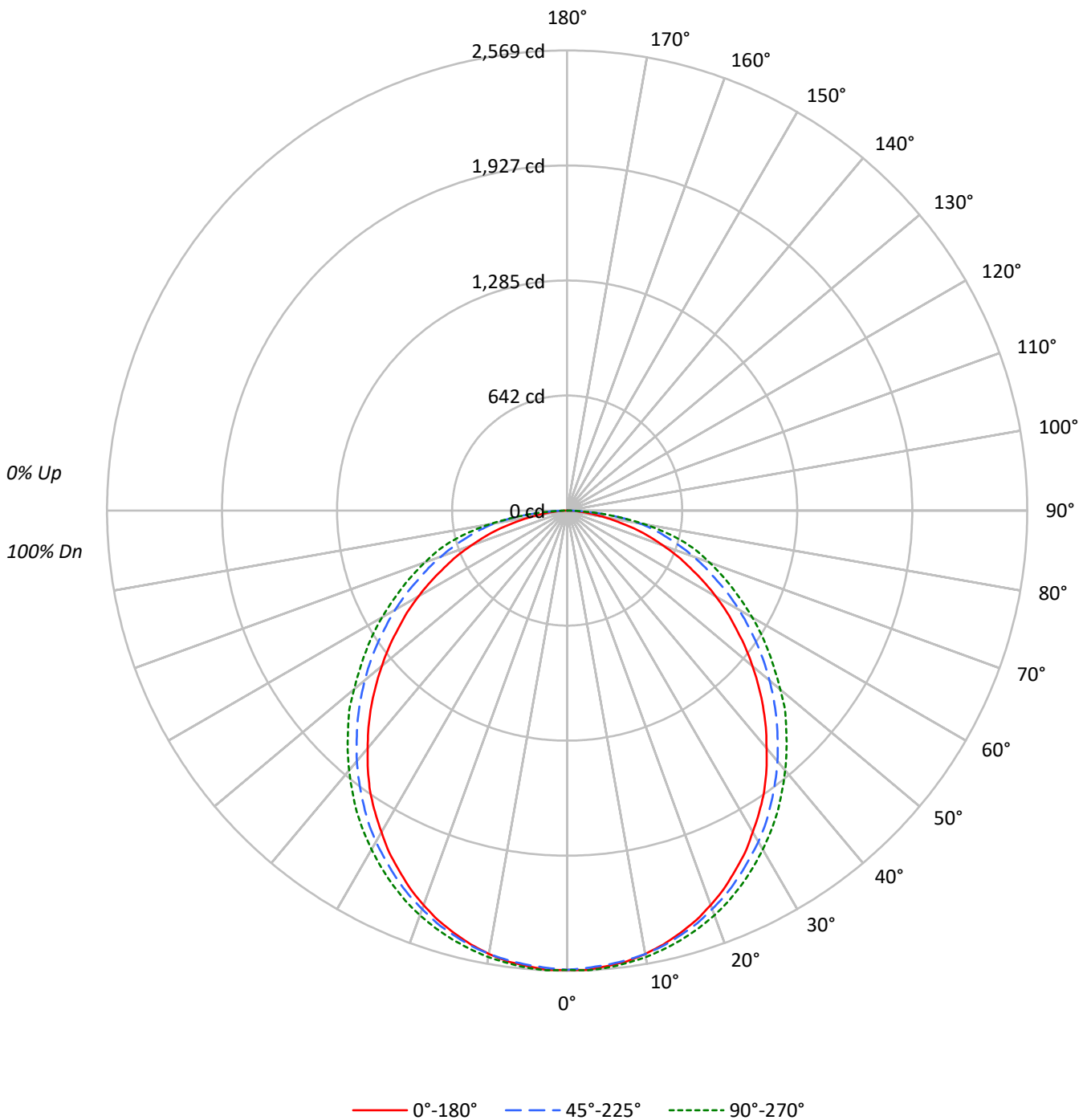
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3450	3450	3450
5°	3448	3438	3460
10°	3434	3434	3459
15°	3401	3417	3453
20°	3356	3390	3443
25°	3294	3356	3422
30°	3220	3318	3393
35°	3150	3264	3367
40°	3042	3209	3327
45°	2943	3146	3291
50°	2830	3087	3252
55°	2703	3030	3220
60°	2577	2982	3213
65°	2414	2931	3233
70°	2235	2946	3320
75°	2001	3001	3507
80°	1617	3180	3432
85°	1216	2793	2720



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.8	3.3
10°-20°	693.7	9.5
20°-30°	1042.8	14.3
30°-40°	1242.1	17.0
40°-50°	1271.2	17.4
50°-60°	1144.5	15.7
60°-70°	898.8	12.3
70°-80°	583.3	8.0
80°-90°	180.4	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°	1979.2	27.1
0°-40°	3221.3	44.1
0°-60°	5637.1	77.2
0°-90°	7299.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7299.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2564	2564	2564	2564	2564	
5°	2553	2557	2546	2560	2562	243
15°	2442	2448	2453	2474	2479	688
25°	2219	2238	2261	2298	2305	1022
35°	1918	1941	1987	2036	2050	1196
45°	1546	1584	1653	1716	1730	1192
55°	1152	1203	1292	1359	1373	1033
65°	758	816	920	997	1016	755
75°	385	459	577	656	675	407
85°	79	146	181	176	176	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2564.4	2564.4	2564.4	2564.4	2564.4
2.5°	2566.7	2566.7	2555.1	2566.7	2569.0
5°	2552.8	2557.4	2545.8	2559.8	2562.1
7.5°	2538.9	2538.9	2531.9	2545.8	2548.2
10°	2513.4	2515.7	2513.4	2529.6	2531.9
12.5°	2480.9	2485.6	2487.9	2504.1	2506.4
15°	2441.5	2448.5	2453.1	2474.0	2478.6
17.5°	2397.5	2404.4	2416.0	2439.2	2443.8
20°	2344.1	2353.4	2367.3	2397.5	2404.4
22.5°	2286.2	2295.4	2318.6	2346.4	2358.0
25°	2218.9	2237.5	2260.7	2297.8	2304.7
27.5°	2151.7	2167.9	2198.1	2237.5	2246.7
30°	2072.8	2098.4	2135.5	2174.9	2184.1
32.5°	1996.3	2021.8	2065.9	2107.6	2119.2
35°	1917.5	1940.7	1987.1	2035.8	2049.7
37.5°	1827.1	1857.2	1908.2	1956.9	1970.8
40°	1732.0	1769.1	1827.1	1878.1	1894.3
42.5°	1641.6	1681.0	1739.0	1794.6	1813.2
45°	1546.5	1583.6	1653.2	1715.8	1729.7
47.5°	1449.1	1490.9	1565.1	1627.7	1650.9
50°	1351.8	1395.8	1474.6	1539.6	1553.5
52.5°	1254.4	1300.7	1384.2	1453.8	1460.7
55°	1152.4	1203.4	1291.5	1358.7	1372.6
57.5°	1059.6	1103.7	1198.7	1268.3	1284.5
60°	957.6	1006.3	1108.3	1173.2	1194.1
62.5°	860.2	911.2	1017.9	1082.8	1101.3
65°	758.2	816.2	920.5	997.0	1015.6
67.5°	670.1	725.7	837.0	911.2	929.8
70°	568.1	630.7	748.9	825.4	844.0
72.5°	480.0	544.9	663.1	737.3	765.1
75°	384.9	459.1	577.3	656.2	674.7
77.5°	292.1	377.9	498.5	558.8	558.8
80°	208.7	299.1	410.4	438.2	442.9
82.5°	136.8	224.9	303.7	301.4	301.4
85°	78.8	146.1	180.9	176.2	176.2
87.5°	30.1	60.3	64.9	64.9	62.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)