

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: P389929

Luminaire Tested: **24CZ2-80VHE-S-UNV-L935-CD1-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: P389929
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: 24CZ2-80VHE-S-UNV-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7131.1 lumens
Efficiency: N/A
Efficacy: 132.5 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

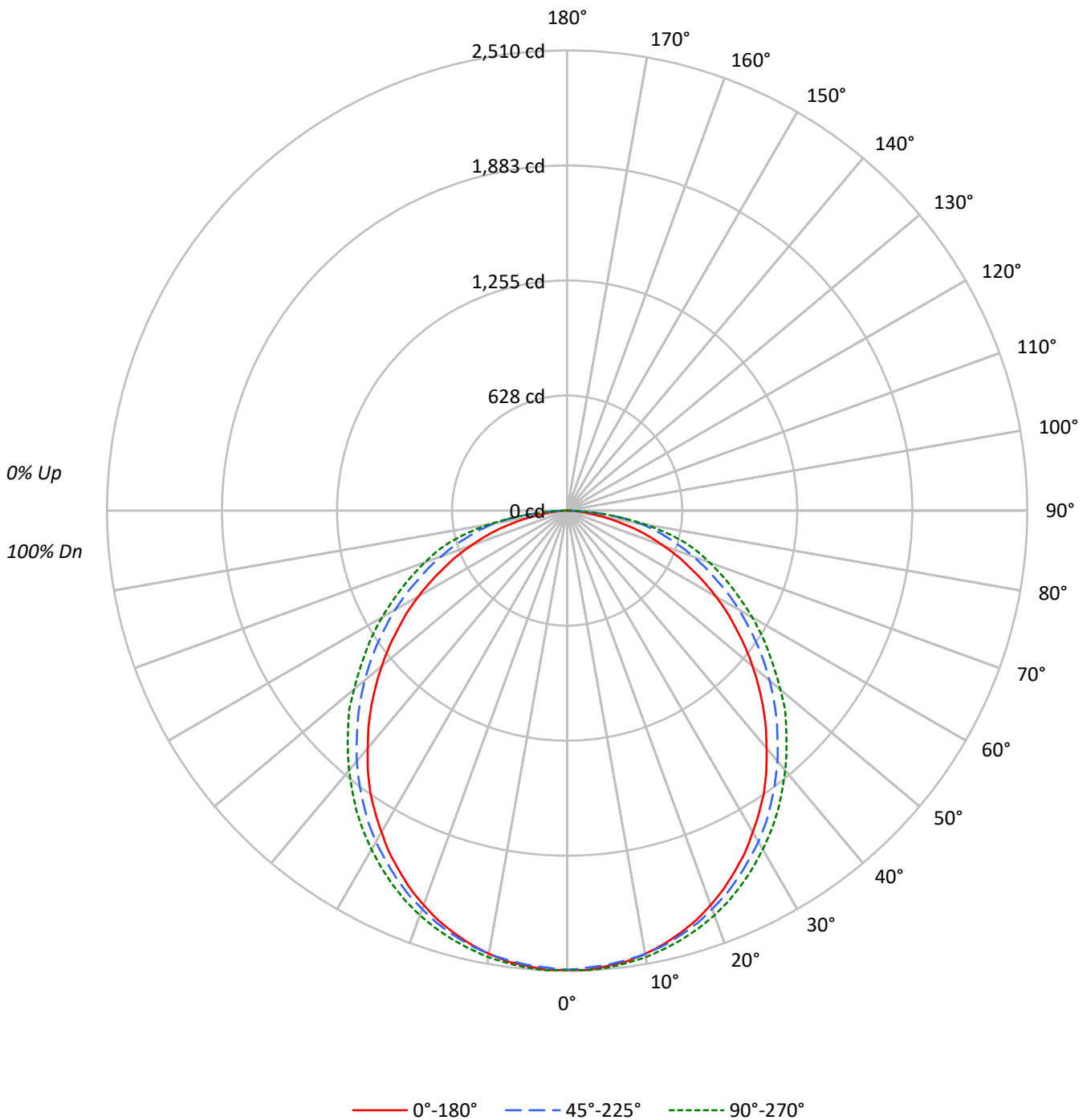
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3371	3371	3371
5°	3368	3359	3380
10°	3355	3355	3379
15°	3322	3338	3373
20°	3279	3311	3363
25°	3218	3279	3343
30°	3146	3241	3315
35°	3077	3188	3289
40°	2972	3135	3250
45°	2875	3073	3215
50°	2764	3015	3177
55°	2641	2960	3145
60°	2517	2914	3139
65°	2358	2863	3159
70°	2183	2878	3244
75°	1955	2932	3426
80°	1580	3106	3352
85°	1189	2728	2657



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.2	3.3
10°-20°	677.7	9.5
20°-30°	1018.7	14.3
30°-40°	1213.4	17.0
40°-50°	1241.9	17.4
50°-60°	1118.1	15.7
60°-70°	878.0	12.3
70°-80°	569.9	8.0
80°-90°	176.2	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°	1933.5	27.1
0°-40°	3147.0	44.1
0°-60°	5507.0	77.2
0°-90°	7131.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7131.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2505	2505	2505	2505	2505	
5°	2494	2498	2487	2501	2503	237
15°	2385	2392	2396	2417	2421	673
25°	2168	2186	2208	2245	2252	999
35°	1873	1896	1941	1989	2002	1169
45°	1511	1547	1615	1676	1690	1165
55°	1126	1176	1262	1327	1341	1009
65°	741	797	899	974	992	737
75°	376	448	564	641	659	398
85°	77	143	177	172	172	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2505.2	2505.2	2505.2	2505.2	2505.2
2.5°	2507.5	2507.5	2496.1	2507.5	2509.7
5°	2493.9	2498.4	2487.1	2500.7	2502.9
7.5°	2480.3	2480.3	2473.5	2487.1	2489.3
10°	2455.4	2457.6	2455.4	2471.2	2473.5
12.5°	2423.7	2428.2	2430.5	2446.3	2448.6
15°	2385.2	2391.9	2396.5	2416.9	2421.4
17.5°	2342.1	2348.9	2360.2	2382.9	2387.4
20°	2290.0	2299.1	2312.7	2342.1	2348.9
22.5°	2233.4	2242.5	2265.1	2292.3	2303.6
25°	2167.7	2185.8	2208.5	2244.7	2251.5
27.5°	2102.0	2117.9	2147.3	2185.8	2194.9
30°	2025.0	2049.9	2086.2	2124.7	2133.7
32.5°	1950.3	1975.2	2018.2	2059.0	2070.3
35°	1873.2	1895.9	1941.2	1988.8	2002.3
37.5°	1784.9	1814.3	1864.2	1911.7	1925.3
40°	1692.0	1728.3	1784.9	1834.7	1850.6
42.5°	1603.7	1642.2	1698.8	1753.2	1771.3
45°	1510.8	1547.1	1615.0	1676.2	1689.8
47.5°	1415.7	1456.5	1528.9	1590.1	1612.8
50°	1320.6	1363.6	1440.6	1504.0	1517.6
52.5°	1225.4	1270.7	1352.3	1420.2	1427.0
55°	1125.8	1175.6	1261.7	1327.3	1340.9
57.5°	1035.2	1078.2	1171.1	1239.0	1254.9
60°	935.5	983.1	1082.7	1146.1	1166.5
62.5°	840.4	890.2	994.4	1057.8	1075.9
65°	740.7	797.3	899.2	974.0	992.1
67.5°	654.6	709.0	817.7	890.2	908.3
70°	554.9	616.1	731.6	806.4	824.5
72.5°	468.9	532.3	647.8	720.3	747.5
75°	376.0	448.5	564.0	641.0	659.1
77.5°	285.4	369.2	487.0	545.9	545.9
80°	203.9	292.2	400.9	428.1	432.6
82.5°	133.6	219.7	296.7	294.5	294.5
85°	77.0	142.7	176.7	172.1	172.1
87.5°	29.4	58.9	63.4	63.4	61.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)