

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: P389930

Luminaire Tested: **24CZ2-80VHE-S-UNV-L935-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: P389930
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-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: 7220.7 lumens
Efficiency: N/A
Efficacy: 134.2 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

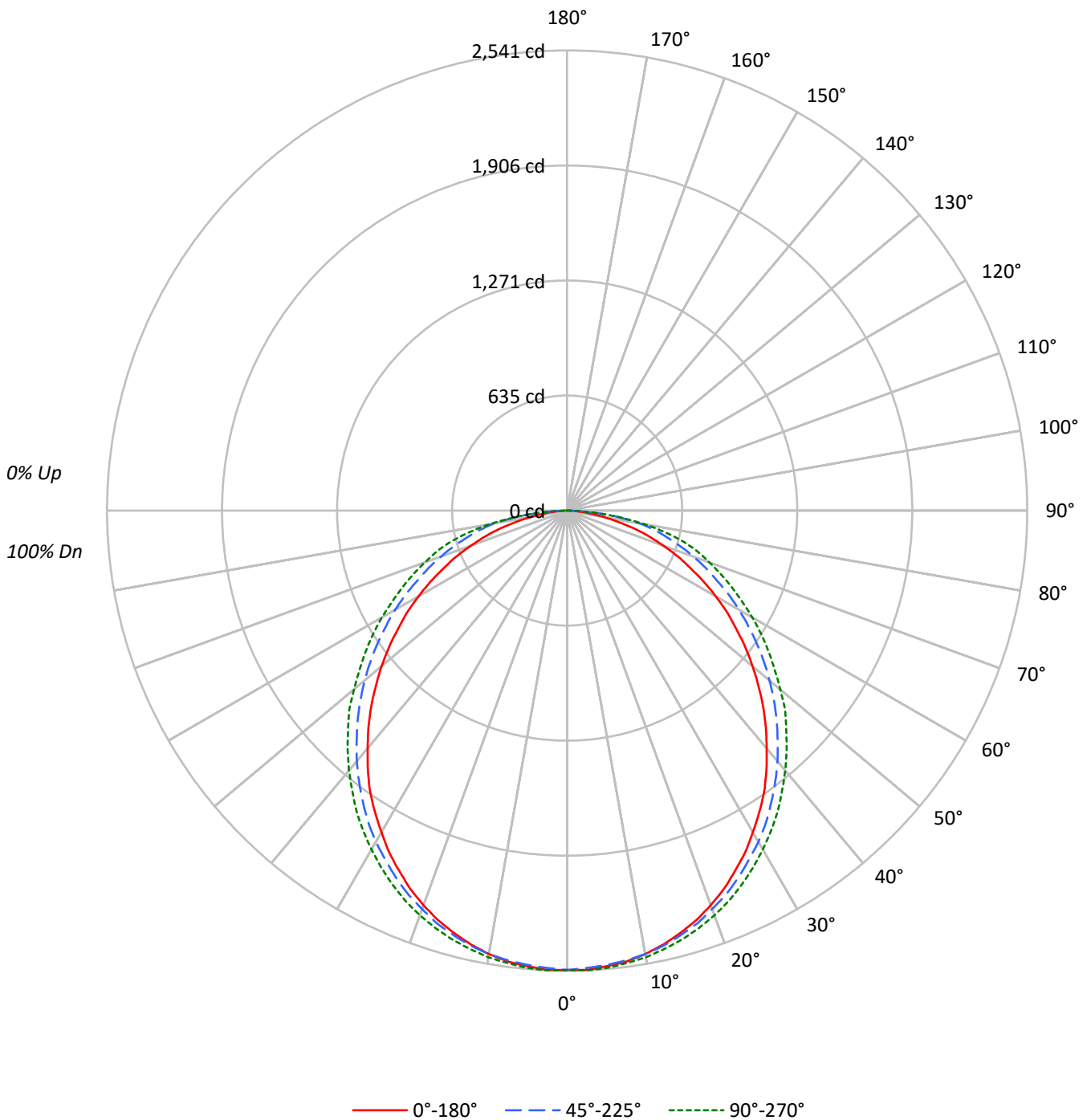
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3413	3413	3413
5°	3411	3401	3423
10°	3397	3397	3422
15°	3364	3380	3415
20°	3320	3353	3405
25°	3259	3320	3385
30°	3186	3282	3357
35°	3116	3229	3330
40°	3009	3174	3291
45°	2911	3112	3256
50°	2799	3053	3217
55°	2674	2997	3185
60°	2549	2950	3179
65°	2388	2899	3198
70°	2210	2914	3284
75°	1979	2969	3470
80°	1599	3146	3395
85°	1204	2762	2691



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.1	3.3
10°-20°	686.2	9.5
20°-30°	1031.5	14.3
30°-40°	1228.7	17.0
40°-50°	1257.5	17.4
50°-60°	1132.1	15.7
60°-70°	889.1	12.3
70°-80°	577.0	8.0
80°-90°	178.5	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°	1957.8	27.1
0°-40°	3186.5	44.1
0°-60°	5576.1	77.2
0°-90°	7220.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7220.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2537	2537	2537	2537	2537	
5°	2525	2530	2518	2532	2534	240
15°	2415	2422	2427	2447	2452	681
25°	2195	2213	2236	2273	2280	1011
35°	1897	1920	1966	2014	2028	1183
45°	1530	1566	1635	1697	1711	1179
55°	1140	1190	1278	1344	1358	1022
65°	750	807	910	986	1005	747
75°	381	454	571	649	667	403
85°	78	144	179	174	174	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2536.7	2536.7	2536.7	2536.7	2536.7
2.5°	2539.0	2539.0	2527.5	2539.0	2541.3
5°	2525.2	2529.8	2518.3	2532.1	2534.4
7.5°	2511.4	2511.4	2504.6	2518.3	2520.6
10°	2486.2	2488.5	2486.2	2502.3	2504.6
12.5°	2454.1	2458.7	2461.0	2477.0	2479.3
15°	2415.1	2422.0	2426.6	2447.2	2451.8
17.5°	2371.5	2378.4	2389.9	2412.8	2417.4
20°	2318.8	2328.0	2341.7	2371.5	2378.4
22.5°	2261.5	2270.6	2293.6	2321.1	2332.6
25°	2194.9	2213.3	2236.2	2272.9	2279.8
27.5°	2128.4	2144.5	2174.3	2213.3	2222.5
30°	2050.4	2075.7	2112.4	2151.4	2160.5
32.5°	1974.8	2000.0	2043.6	2084.8	2096.3
35°	1896.8	1919.7	1965.6	2013.7	2027.5
37.5°	1807.3	1837.1	1887.6	1935.8	1949.5
40°	1713.3	1750.0	1807.3	1857.8	1873.8
42.5°	1623.8	1662.8	1720.2	1775.2	1793.6
45°	1529.8	1566.5	1635.3	1697.2	1711.0
47.5°	1433.5	1474.8	1548.2	1610.1	1633.0
50°	1337.1	1380.7	1458.7	1522.9	1536.7
52.5°	1240.8	1286.7	1369.3	1438.1	1444.9
55°	1139.9	1190.4	1277.5	1344.0	1357.8
57.5°	1048.2	1091.7	1185.8	1254.6	1270.6
60°	947.2	995.4	1096.3	1160.5	1181.2
62.5°	850.9	901.4	1006.9	1071.1	1089.4
65°	750.0	807.3	910.5	986.2	1004.6
67.5°	662.8	717.9	828.0	901.4	919.7
70°	561.9	623.8	740.8	816.5	834.9
72.5°	474.8	539.0	656.0	729.4	756.9
75°	380.7	454.1	571.1	649.1	667.4
77.5°	289.0	373.9	493.1	552.7	552.7
80°	206.4	295.9	406.0	433.5	438.1
82.5°	135.3	222.5	300.5	298.2	298.2
85°	78.0	144.5	178.9	174.3	174.3
87.5°	29.8	59.6	64.2	64.2	61.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)