

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: P389932

Luminaire Tested: **24CZ2-80VHE-S-UNV-L940-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: P389932
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-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7204.9 lumens
Efficiency: N/A
Efficacy: 133.9 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

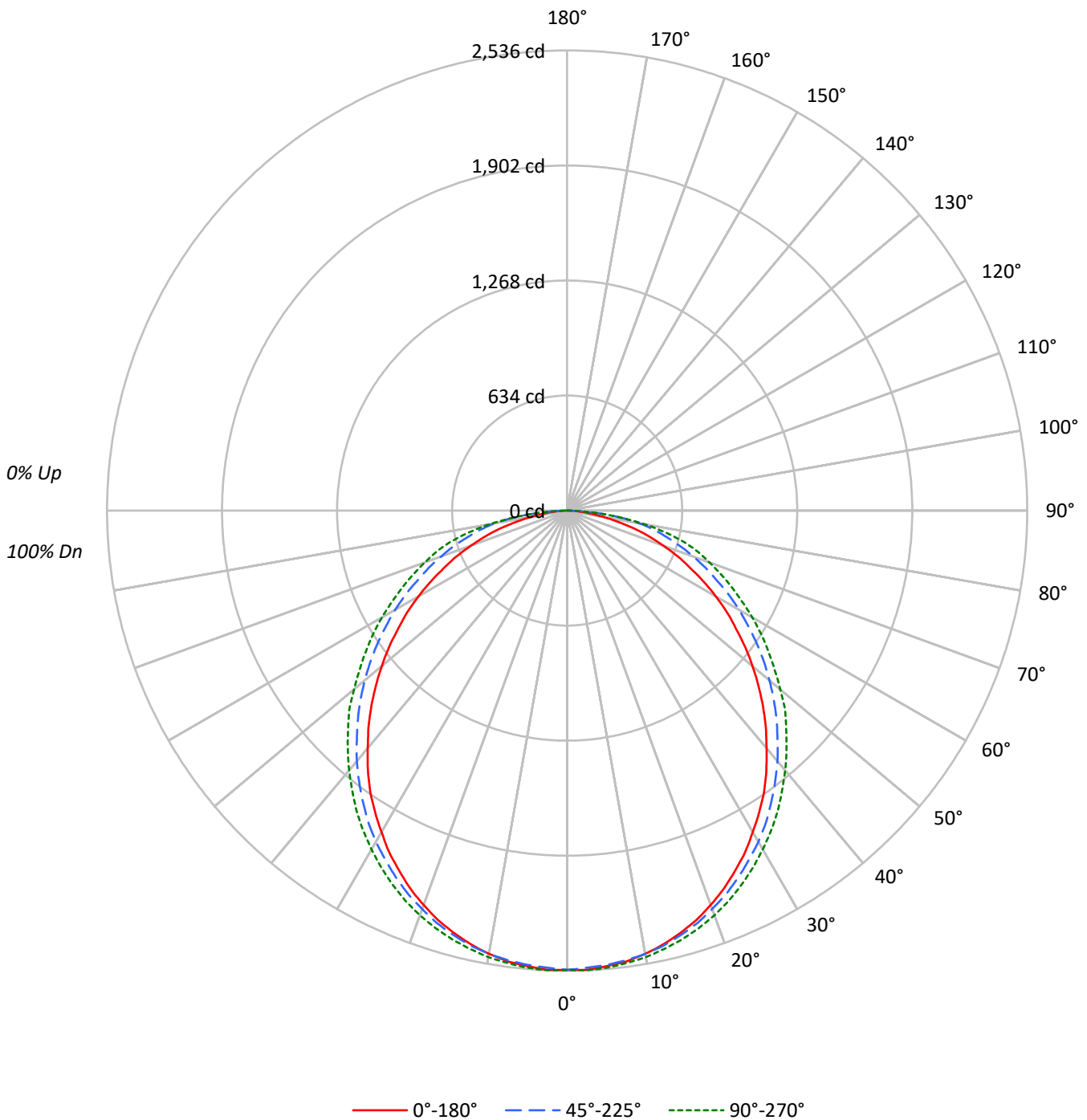
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3406	3406	3406
5°	3403	3394	3415
10°	3389	3389	3414
15°	3357	3373	3408
20°	3313	3346	3398
25°	3251	3313	3377
30°	3179	3275	3349
35°	3109	3222	3323
40°	3003	3168	3284
45°	2905	3105	3249
50°	2793	3047	3210
55°	2668	2990	3178
60°	2544	2944	3172
65°	2383	2893	3191
70°	2206	2908	3277
75°	1975	2962	3462
80°	1596	3139	3387
85°	1201	2756	2685



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.6	3.3
10°-20°	684.7	9.5
20°-30°	1029.2	14.3
30°-40°	1226.0	17.0
40°-50°	1254.7	17.4
50°-60°	1129.6	15.7
60°-70°	887.1	12.3
70°-80°	575.8	8.0
80°-90°	178.1	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°	1953.6	27.1
0°-40°	3179.5	44.1
0°-60°	5563.9	77.2
0°-90°	7204.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7204.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2531	2531	2531	2531	2531	
5°	2520	2524	2513	2527	2529	239
15°	2410	2417	2421	2442	2446	679
25°	2190	2208	2231	2268	2275	1009
35°	1893	1916	1961	2009	2023	1181
45°	1526	1563	1632	1694	1707	1177
55°	1137	1188	1275	1341	1355	1020
65°	748	806	909	984	1002	745
75°	380	453	570	648	666	402
85°	78	144	178	174	174	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2531.1	2531.1	2531.1	2531.1	2531.1
2.5°	2533.4	2533.4	2522.0	2533.4	2535.7
5°	2519.7	2524.3	2512.8	2526.6	2528.8
7.5°	2506.0	2506.0	2499.1	2512.8	2515.1
10°	2480.8	2483.1	2480.8	2496.8	2499.1
12.5°	2448.7	2453.3	2455.6	2471.6	2473.9
15°	2409.8	2416.7	2421.3	2441.9	2446.5
17.5°	2366.4	2373.2	2384.7	2407.5	2412.1
20°	2313.7	2322.9	2336.6	2366.4	2373.2
22.5°	2256.5	2265.7	2288.5	2316.0	2327.4
25°	2190.1	2208.4	2231.3	2267.9	2274.8
27.5°	2123.8	2139.8	2169.5	2208.4	2217.6
30°	2046.0	2071.1	2107.7	2146.7	2155.8
32.5°	1970.4	1995.6	2039.1	2080.3	2091.7
35°	1892.6	1915.5	1961.3	2009.3	2023.1
37.5°	1803.4	1833.1	1883.5	1931.5	1945.3
40°	1709.5	1746.2	1803.4	1853.7	1869.7
42.5°	1620.3	1659.2	1716.4	1771.3	1789.6
45°	1526.5	1563.1	1631.7	1693.5	1707.3
47.5°	1430.3	1471.5	1544.8	1606.6	1629.4
50°	1334.2	1377.7	1455.5	1519.6	1533.3
52.5°	1238.1	1283.9	1366.3	1434.9	1441.8
55°	1137.4	1187.8	1274.7	1341.1	1354.8
57.5°	1045.9	1089.3	1183.2	1251.8	1267.9
60°	945.2	993.2	1093.9	1158.0	1178.6
62.5°	849.0	899.4	1004.7	1068.7	1087.1
65°	748.4	805.6	908.6	984.1	1002.4
67.5°	661.4	716.3	826.2	899.4	917.7
70°	560.7	622.5	739.2	814.7	833.0
72.5°	473.7	537.8	654.5	727.8	755.2
75°	379.9	453.1	569.8	647.7	666.0
77.5°	288.4	373.0	492.0	551.5	551.5
80°	206.0	295.2	405.1	432.5	437.1
82.5°	135.0	222.0	299.8	297.5	297.5
85°	77.8	144.2	178.5	173.9	173.9
87.5°	29.8	59.5	64.1	64.1	61.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)