

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: P389928

Luminaire Tested: **24CZ2-80VHE-S-UNV-L935-CD1-SDWPD1-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: P389928
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-SDWPD1-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: 7045.1 lumens
Efficiency: N/A
Efficacy: 130.9 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

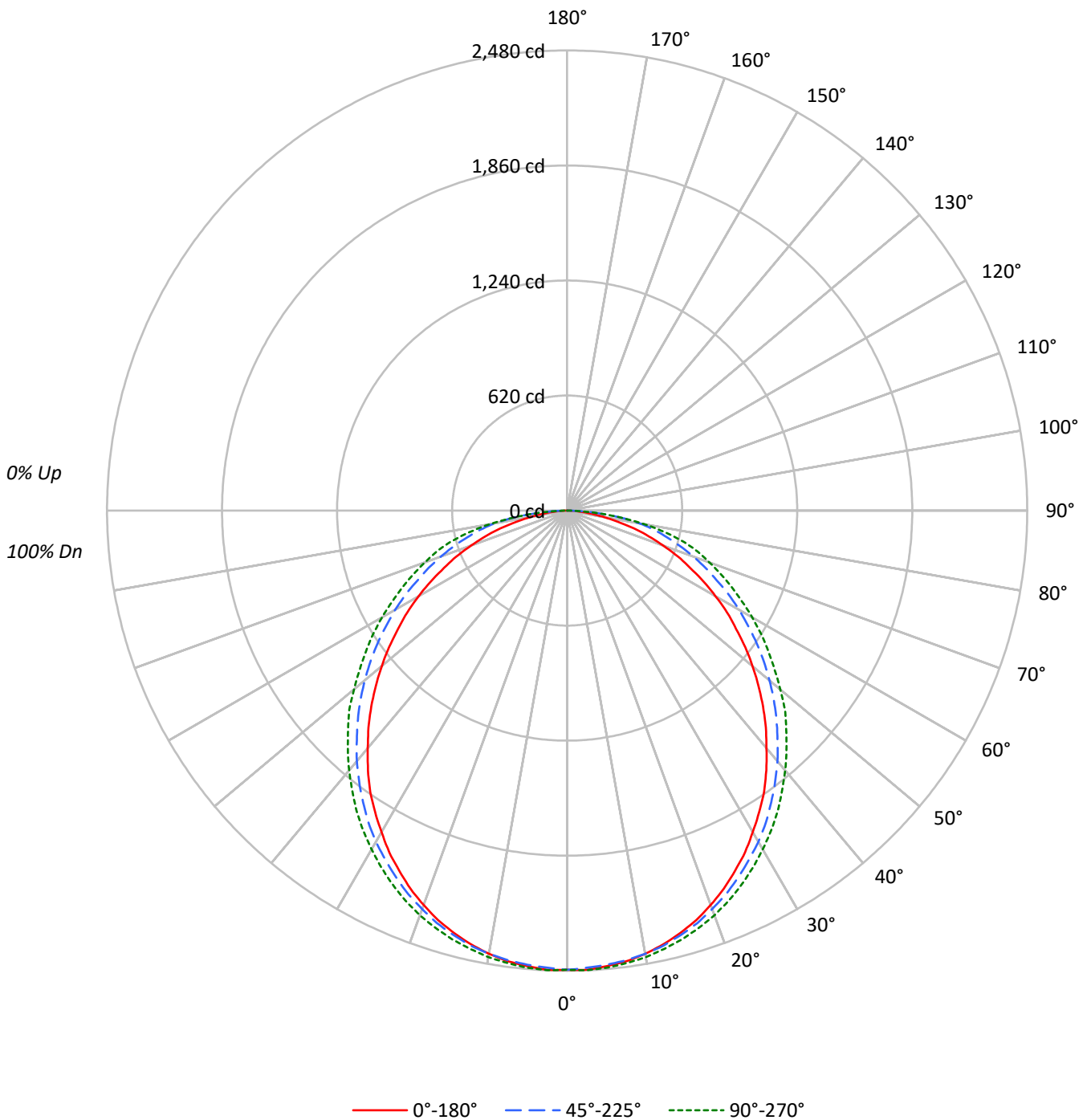
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3330	3330	3330
5°	3328	3319	3340
10°	3314	3314	3339
15°	3282	3298	3332
20°	3239	3271	3323
25°	3179	3239	3302
30°	3108	3202	3275
35°	3040	3150	3249
40°	2936	3097	3211
45°	2840	3036	3177
50°	2731	2979	3138
55°	2609	2924	3108
60°	2487	2879	3101
65°	2330	2828	3120
70°	2157	2843	3205
75°	1931	2897	3385
80°	1561	3069	3312
85°	1175	2694	2626



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.3	3.3
10°-20°	669.5	9.5
20°-30°	1006.4	14.3
30°-40°	1198.8	17.0
40°-50°	1226.9	17.4
50°-60°	1104.6	15.7
60°-70°	867.4	12.3
70°-80°	563.0	8.0
80°-90°	174.1	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°	1910.2	27.1
0°-40°	3109.0	44.1
0°-60°	5440.5	77.2
0°-90°	7045.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7045.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2475	2475	2475	2475	2475	
5°	2464	2468	2457	2470	2473	234
15°	2356	2363	2368	2388	2392	664
25°	2142	2160	2182	2218	2224	987
35°	1851	1873	1918	1965	1978	1155
45°	1493	1528	1596	1656	1669	1151
55°	1112	1161	1246	1311	1325	997
65°	732	788	888	962	980	728
75°	372	443	557	633	651	393
85°	76	141	174	170	170	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2475.0	2475.0	2475.0	2475.0	2475.0
2.5°	2477.2	2477.2	2466.0	2477.2	2479.5
5°	2463.8	2468.3	2457.1	2470.5	2472.8
7.5°	2450.4	2450.4	2443.7	2457.1	2459.3
10°	2425.8	2428.0	2425.8	2441.4	2443.7
12.5°	2394.4	2398.9	2401.1	2416.8	2419.0
15°	2356.4	2363.1	2367.6	2387.7	2392.2
17.5°	2313.9	2320.6	2331.8	2354.1	2358.6
20°	2262.4	2271.4	2284.8	2313.9	2320.6
22.5°	2206.5	2215.4	2237.8	2264.6	2275.8
25°	2141.6	2159.5	2181.8	2217.6	2224.4
27.5°	2076.7	2092.3	2121.4	2159.5	2168.4
30°	2000.6	2025.2	2061.0	2099.0	2108.0
32.5°	1926.7	1951.3	1993.9	2034.1	2045.3
35°	1850.6	1873.0	1917.8	1964.8	1978.2
37.5°	1763.4	1792.5	1841.7	1888.7	1902.1
40°	1671.6	1707.4	1763.4	1812.6	1828.3
42.5°	1584.4	1622.4	1678.3	1732.0	1749.9
45°	1492.6	1528.4	1595.5	1656.0	1669.4
47.5°	1398.6	1438.9	1510.5	1570.9	1593.3
50°	1304.6	1347.1	1423.2	1485.9	1499.3
52.5°	1210.6	1255.4	1336.0	1403.1	1409.8
55°	1112.2	1161.4	1246.4	1311.3	1324.8
57.5°	1022.7	1065.2	1156.9	1224.1	1239.7
60°	924.2	971.2	1069.7	1132.3	1152.5
62.5°	830.2	879.4	982.4	1045.0	1062.9
65°	731.8	787.7	888.4	962.2	980.1
67.5°	646.7	700.4	807.8	879.4	897.4
70°	548.3	608.7	722.8	796.7	814.6
72.5°	463.2	525.9	640.0	711.6	738.5
75°	371.5	443.1	557.2	633.3	651.2
77.5°	282.0	364.8	481.1	539.3	539.3
80°	201.4	288.7	396.1	422.9	427.4
82.5°	132.0	217.1	293.1	290.9	290.9
85°	76.1	141.0	174.5	170.1	170.1
87.5°	29.1	58.2	62.7	62.7	60.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)