

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: P388657

Luminaire Tested: **24CZ2-130VHE-UNV-L935-CD2-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: P388657
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-130VHE-UNV-L935-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11081.2 lumens
Efficiency: N/A
Efficacy: 122.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

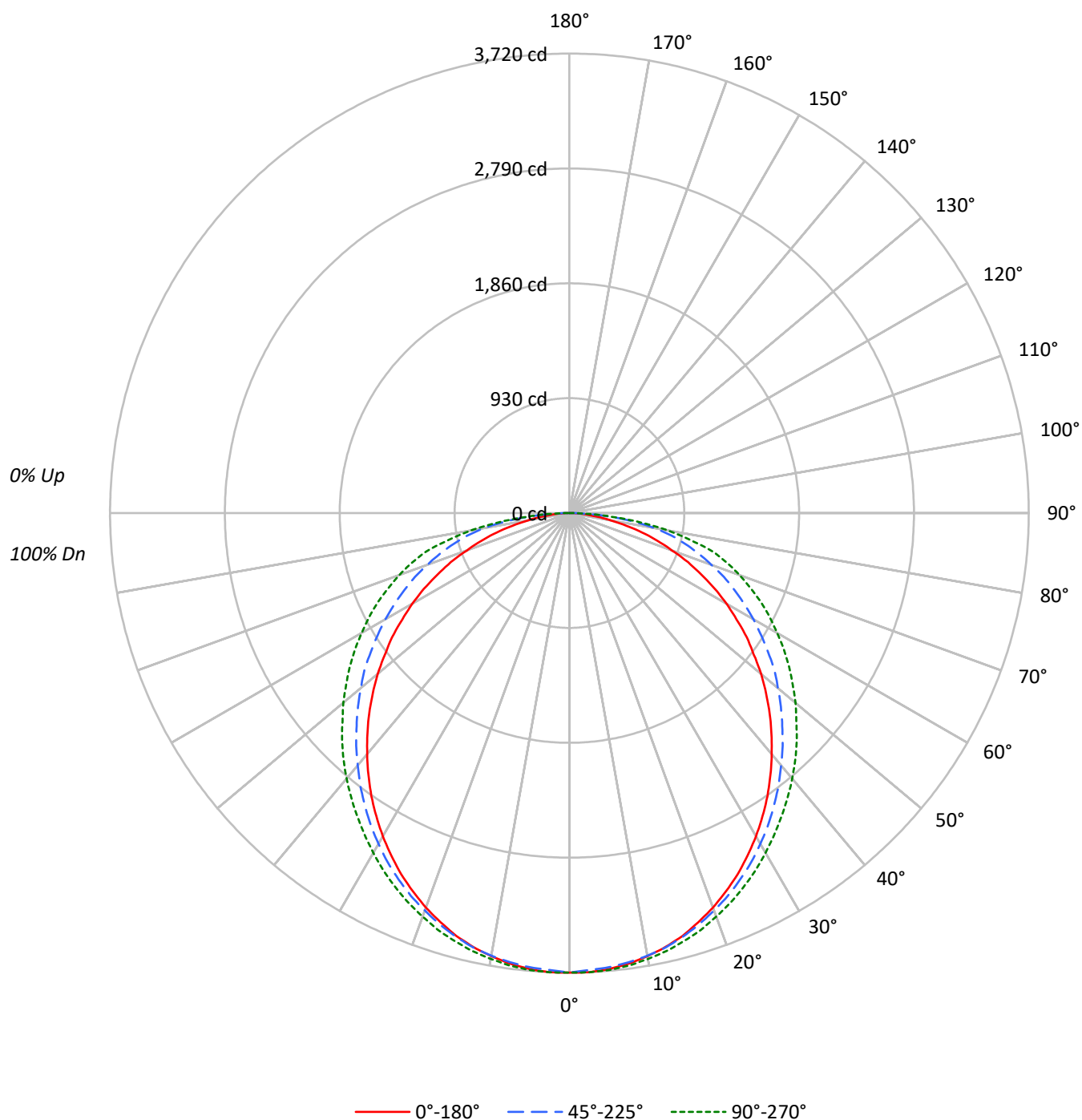
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388657

CATALOG NUMBER: 24CZ2-130VHE-UNV-L935-CD2-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388657

CATALOG NUMBER: 24CZ2-130VHE-UNV-L935-CD2-SWPD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		56
4	81	69	59	52	79	67	59	52	65	57	51		62	56	51		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	39		50	44	38		36
7	64	50	41	35	62	49	40	34	47	40	34		46	39	34		32
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		28
9	55	42	33	28	54	41	33	28	40	33	27		39	32	27		25
10	52	38	30	25	51	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5006	5006	5006
5°	5005	4985	5015
10°	4977	4972	5007
15°	4935	4946	4997
20°	4866	4903	4978
25°	4788	4859	4958
30°	4694	4804	4936
35°	4592	4744	4920
40°	4476	4683	4930
45°	4363	4638	4954
50°	4242	4614	5001
55°	4112	4607	5092
60°	3951	4628	5225
65°	3744	4698	5451
70°	3477	4816	5761
75°	3172	5056	6248
80°	2607	5445	6247
85°	1998	5023	5366



TEST NUMBER: P388657

CATALOG NUMBER: 24CZ2-130VHE-UNV-L935-CD2-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	351.9	3.2
10°-20°	1004.6	9.1
20°-30°	1511.7	13.6
30°-40°	1811.6	16.3
40°-50°	1887.9	17.0
50°-60°	1756.4	15.9
60°-70°	1446.7	13.1
70°-80°	985.2	8.9
80°-90°	325.3	2.9
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°	2868.1	25.9
0°-40°	4679.7	42.2
0°-60°	8324.0	75.1
0°-90°	11081.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11081.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3720	3720	3720	3720	3720	
5°	3706	3706	3691	3709	3713	352
15°	3543	3547	3550	3584	3587	998
25°	3225	3240	3273	3328	3340	1485
35°	2796	2829	2888	2966	2996	1748
45°	2293	2341	2437	2559	2604	1768
55°	1753	1812	1964	2119	2171	1563
65°	1176	1276	1476	1649	1712	1167
75°	610	747	973	1146	1202	643
85°	129	252	325	348	348	160
90°	0	0	0	0	0	



TEST NUMBER: P388657

CATALOG NUMBER: 24CZ2-130VHE-UNV-L935-CD2-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3720.5	3720.5	3720.5	3720.5	3720.5
2.5°	3720.5	3720.5	3702.0	3720.5	3720.5
5°	3705.7	3705.7	3690.9	3709.4	3713.1
7.5°	3679.8	3683.5	3668.7	3690.9	3694.6
10°	3642.8	3646.5	3639.1	3661.3	3665.0
12.5°	3598.4	3602.1	3602.1	3628.0	3631.7
15°	3543.0	3546.7	3550.4	3583.6	3587.3
17.5°	3472.7	3483.8	3491.2	3531.9	3539.3
20°	3398.7	3409.8	3424.6	3469.0	3476.4
22.5°	3313.7	3328.5	3354.3	3402.4	3413.5
25°	3224.9	3239.7	3273.0	3328.5	3339.6
27.5°	3125.1	3147.2	3187.9	3247.1	3261.9
30°	3021.5	3043.7	3091.8	3154.6	3176.8
32.5°	2910.5	2940.1	2995.6	3065.9	3088.1
35°	2795.9	2829.2	2888.4	2966.0	2995.6
37.5°	2673.9	2710.8	2781.1	2866.2	2903.2
40°	2548.1	2592.5	2666.5	2766.3	2807.0
42.5°	2422.4	2463.1	2555.5	2662.8	2707.1
45°	2292.9	2341.0	2437.2	2559.2	2603.6
47.5°	2159.8	2207.9	2322.5	2452.0	2492.6
50°	2026.7	2074.7	2204.2	2341.0	2389.1
52.5°	1882.4	1945.3	2093.2	2230.1	2278.1
55°	1753.0	1812.2	1963.8	2119.1	2170.9
57.5°	1605.1	1675.3	1841.7	2004.5	2059.9
60°	1468.2	1542.2	1719.7	1886.1	1941.6
62.5°	1327.7	1409.0	1597.7	1767.8	1830.7
65°	1176.1	1275.9	1475.6	1649.4	1712.3
67.5°	1039.2	1142.8	1353.6	1531.1	1586.6
70°	883.9	1009.6	1224.1	1401.6	1464.5
72.5°	750.8	876.5	1102.1	1275.9	1338.8
75°	610.2	747.1	972.6	1146.5	1201.9
77.5°	469.7	621.3	846.9	980.0	998.5
80°	336.5	495.6	702.7	780.3	806.2
82.5°	236.7	380.9	517.8	569.5	584.3
85°	129.4	251.5	325.4	347.6	347.6
87.5°	55.5	107.3	129.4	133.1	136.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)