

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: P389018

Luminaire Tested: **24CZ2-85VHE-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: P389018
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: 24CZ2-85VHE-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

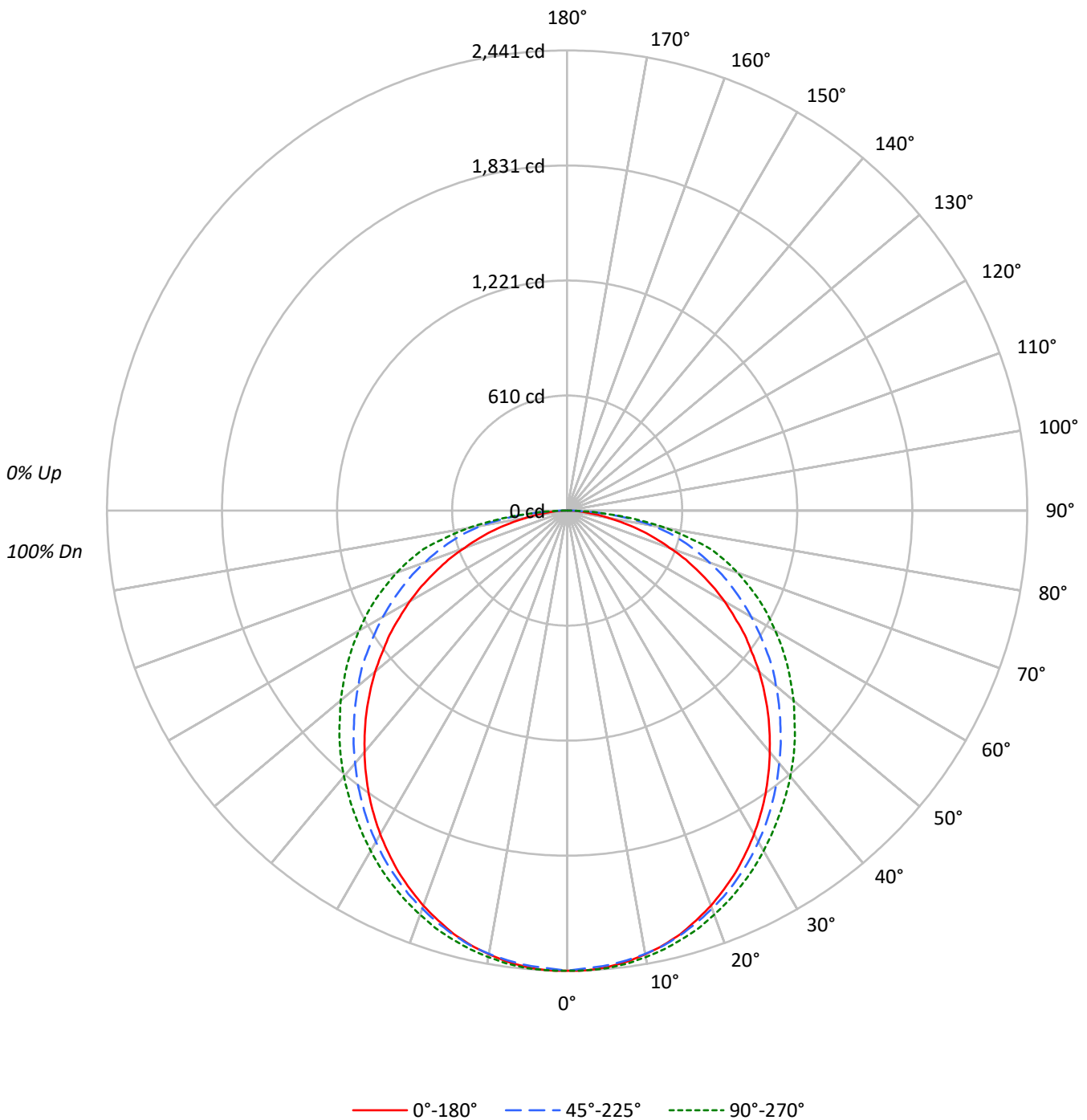
Lumens per Lamp: N/A
Luminaire Lumens: 7271.1 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 57.9
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: P389018
CATALOG NUMBER: 24CZ2-85VHE-UNV-L935-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P389018

CATALOG NUMBER: 24CZ2-85VHE-UNV-L935-CD1-U

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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3285	3285	3285
5°	3284	3271	3291
10°	3266	3262	3286
15°	3238	3245	3279
20°	3193	3217	3266
25°	3142	3188	3253
30°	3080	3152	3239
35°	3013	3113	3229
40°	2937	3073	3235
45°	2863	3043	3251
50°	2784	3027	3281
55°	2698	3023	3342
60°	2592	3037	3428
65°	2457	3082	3577
70°	2282	3160	3781
75°	2082	3318	4100
80°	1711	3573	4099
85°	1311	3296	3521



TEST NUMBER: P389018

CATALOG NUMBER: 24CZ2-85VHE-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.9	3.2
10°-20°	659.2	9.1
20°-30°	991.9	13.6
30°-40°	1188.7	16.3
40°-50°	1238.8	17.0
50°-60°	1152.5	15.9
60°-70°	949.2	13.1
70°-80°	646.5	8.9
80°-90°	213.4	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°	1882.0	25.9
0°-40°	3070.7	42.2
0°-60°	5462.0	75.1
0°-90°	7271.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7271.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2441	2441	2441	2441	2441	
5°	2432	2432	2422	2434	2436	231
15°	2325	2327	2330	2352	2354	655
25°	2116	2126	2148	2184	2191	974
35°	1835	1856	1895	1946	1966	1147
45°	1504	1536	1599	1679	1708	1160
55°	1150	1189	1289	1390	1424	1025
65°	772	837	968	1082	1124	766
75°	400	490	638	752	789	422
85°	85	165	214	228	228	105
90°	0	0	0	0	0	



TEST NUMBER: P389018

CATALOG NUMBER: 24CZ2-85VHE-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2441.2	2441.2	2441.2	2441.2	2441.2
2.5°	2441.2	2441.2	2429.1	2441.2	2441.2
5°	2431.5	2431.5	2421.8	2434.0	2436.4
7.5°	2414.6	2417.0	2407.3	2421.8	2424.3
10°	2390.3	2392.7	2387.9	2402.4	2404.8
12.5°	2361.2	2363.6	2363.6	2380.6	2383.0
15°	2324.8	2327.2	2329.6	2351.5	2353.9
17.5°	2278.7	2285.9	2290.8	2317.5	2322.3
20°	2230.1	2237.4	2247.1	2276.2	2281.1
22.5°	2174.3	2184.0	2201.0	2232.6	2239.8
25°	2116.1	2125.8	2147.6	2184.0	2191.3
27.5°	2050.5	2065.1	2091.8	2130.6	2140.3
30°	1982.6	1997.2	2028.7	2070.0	2084.5
32.5°	1909.8	1929.2	1965.6	2011.7	2026.3
35°	1834.6	1856.4	1895.2	1946.2	1965.6
37.5°	1754.5	1778.8	1824.9	1880.7	1904.9
40°	1672.0	1701.1	1749.6	1815.2	1841.9
42.5°	1589.5	1616.2	1676.8	1747.2	1776.3
45°	1504.5	1536.1	1599.2	1679.3	1708.4
47.5°	1417.2	1448.7	1524.0	1608.9	1635.6
50°	1329.8	1361.4	1446.3	1536.1	1567.6
52.5°	1235.2	1276.4	1373.5	1463.3	1494.8
55°	1150.2	1189.1	1288.6	1390.5	1424.5
57.5°	1053.2	1099.3	1208.5	1315.3	1351.7
60°	963.4	1011.9	1128.4	1237.6	1274.0
62.5°	871.2	924.6	1048.3	1160.0	1201.2
65°	771.7	837.2	968.2	1082.3	1123.6
67.5°	681.9	749.8	888.2	1004.6	1041.0
70°	580.0	662.5	803.2	919.7	961.0
72.5°	492.6	575.1	723.2	837.2	878.5
75°	400.4	490.2	638.2	752.3	788.7
77.5°	308.2	407.7	555.7	643.1	655.2
80°	220.8	325.2	461.1	512.0	529.0
82.5°	155.3	249.9	339.7	373.7	383.4
85°	84.9	165.0	213.5	228.1	228.1
87.5°	36.4	70.4	84.9	87.4	89.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)