

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: P389950

Luminaire Tested: **24CZ2-85VHE-S-UNV-L930-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: P389950
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: 24CZ2-85VHE-S-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7363.1 lumens
Efficiency: N/A
Efficacy: 127.2 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

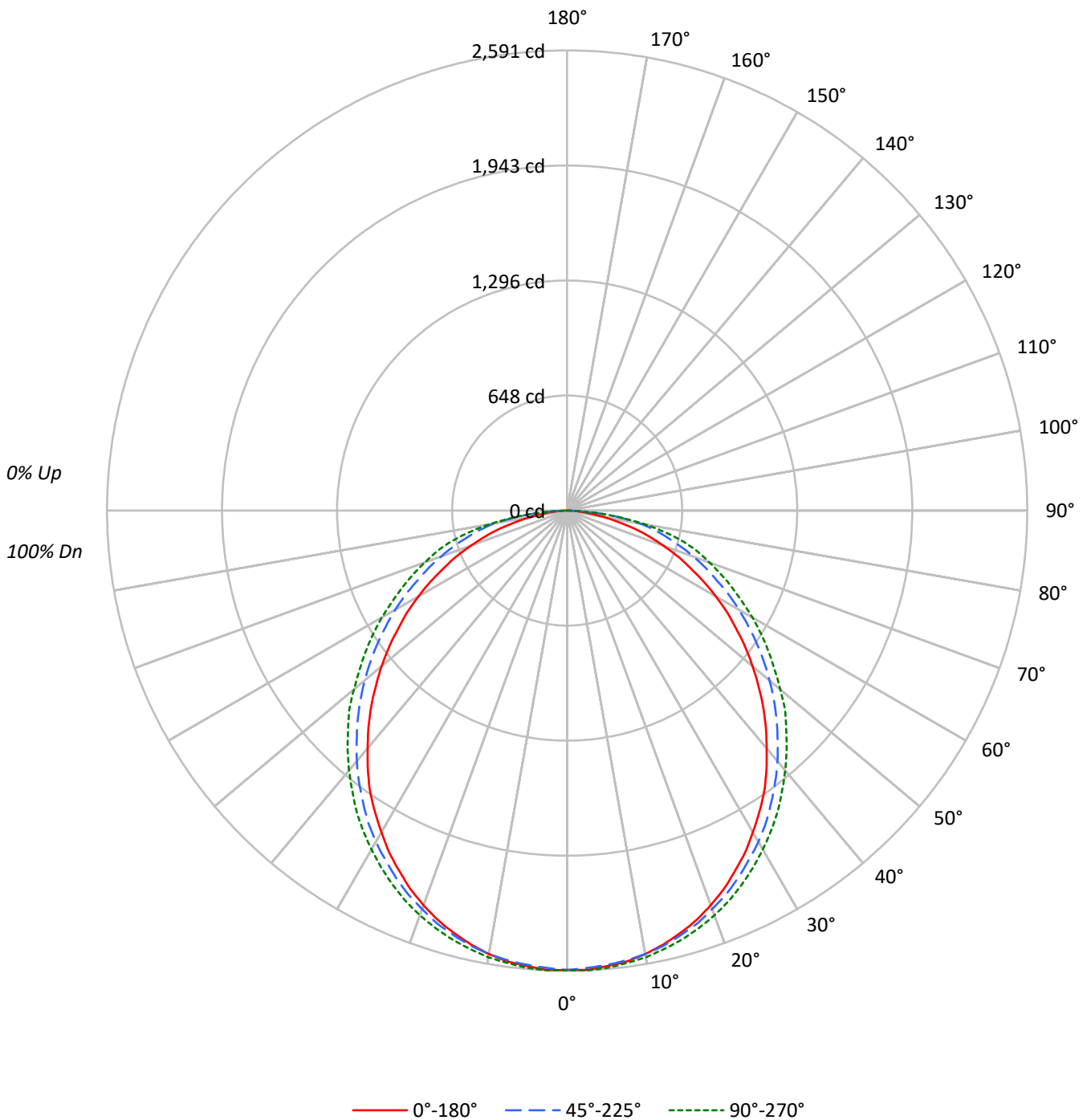
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P389950

CATALOG NUMBER: 24CZ2-85VHE-S-UNV-L930-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P389950

CATALOG NUMBER: 24CZ2-85VHE-S-UNV-L930-CD1-SWPD1-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	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°	3480	3480	3480
5°	3478	3468	3491
10°	3464	3464	3489
15°	3430	3447	3483
20°	3386	3419	3473
25°	3323	3385	3451
30°	3249	3347	3423
35°	3177	3292	3396
40°	3069	3237	3356
45°	2968	3173	3320
50°	2854	3114	3280
55°	2727	3056	3248
60°	2599	3008	3241
65°	2435	2956	3261
70°	2254	2972	3349
75°	2018	3028	3538
80°	1631	3208	3461
85°	1227	2816	2743



TEST NUMBER: P389950

CATALOG NUMBER: 24CZ2-85VHE-S-UNV-L930-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.9	3.3
10°-20°	699.7	9.5
20°-30°	1051.8	14.3
30°-40°	1252.9	17.0
40°-50°	1282.3	17.4
50°-60°	1154.4	15.7
60°-70°	906.6	12.3
70°-80°	588.4	8.0
80°-90°	182.0	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°	1996.4	27.1
0°-40°	3249.4	44.1
0°-60°	5686.1	77.2
0°-90°	7363.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7363.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2587	2587	2587	2587	2587	
5°	2575	2580	2568	2582	2584	245
15°	2463	2470	2474	2496	2500	694
25°	2238	2257	2280	2318	2325	1031
35°	1934	1958	2004	2054	2068	1207
45°	1560	1597	1668	1731	1745	1203
55°	1162	1214	1303	1370	1385	1042
65°	765	823	928	1006	1024	761
75°	388	463	582	662	681	411
85°	80	147	182	178	178	96
90°	0	0	0	0	0	



TEST NUMBER: P389950

CATALOG NUMBER: 24CZ2-85VHE-S-UNV-L930-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2586.7	2586.7	2586.7	2586.7	2586.7
2.5°	2589.0	2589.0	2577.3	2589.0	2591.4
5°	2575.0	2579.7	2568.0	2582.0	2584.4
7.5°	2561.0	2561.0	2554.0	2568.0	2570.3
10°	2535.3	2537.6	2535.3	2551.6	2554.0
12.5°	2502.5	2507.2	2509.5	2525.9	2528.2
15°	2462.7	2469.8	2474.4	2495.5	2500.2
17.5°	2418.3	2425.3	2437.0	2460.4	2465.1
20°	2364.5	2373.9	2387.9	2418.3	2425.3
22.5°	2306.0	2315.4	2338.8	2366.9	2378.6
25°	2238.2	2256.9	2280.3	2317.7	2324.8
27.5°	2170.4	2186.8	2217.2	2256.9	2266.3
30°	2090.9	2116.6	2154.0	2193.8	2203.1
32.5°	2013.7	2039.4	2083.9	2126.0	2137.7
35°	1934.2	1957.6	2004.3	2053.5	2067.5
37.5°	1843.0	1873.4	1924.8	1973.9	1988.0
40°	1747.1	1784.5	1843.0	1894.4	1910.8
42.5°	1655.9	1695.6	1754.1	1810.2	1828.9
45°	1560.0	1597.4	1667.6	1730.7	1744.7
47.5°	1461.7	1503.8	1578.7	1641.8	1665.2
50°	1363.5	1408.0	1487.5	1553.0	1567.0
52.5°	1265.3	1312.1	1396.3	1466.4	1473.4
55°	1162.4	1213.8	1302.7	1370.5	1384.6
57.5°	1068.8	1113.3	1209.2	1279.3	1295.7
60°	965.9	1015.0	1117.9	1183.4	1204.5
62.5°	867.7	919.1	1026.7	1092.2	1110.9
65°	764.8	823.3	928.5	1005.7	1024.4
67.5°	675.9	732.0	844.3	919.1	937.9
70°	573.0	636.2	755.4	832.6	851.3
72.5°	484.1	549.6	668.9	743.7	771.8
75°	388.2	463.1	582.4	661.9	680.6
77.5°	294.7	381.2	502.8	563.6	563.6
80°	210.5	301.7	414.0	442.0	446.7
82.5°	138.0	226.9	306.4	304.0	304.0
85°	79.5	147.3	182.4	177.7	177.7
87.5°	30.4	60.8	65.5	65.5	63.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)