

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: P389182

Luminaire Tested: **22CZ2-29VHE-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: P389182
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29VHE-S-UNV-L930-CD1-SWPD1-U
Description: 2x2 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: 2666.1 lumens
Efficiency: N/A
Efficacy: 122.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

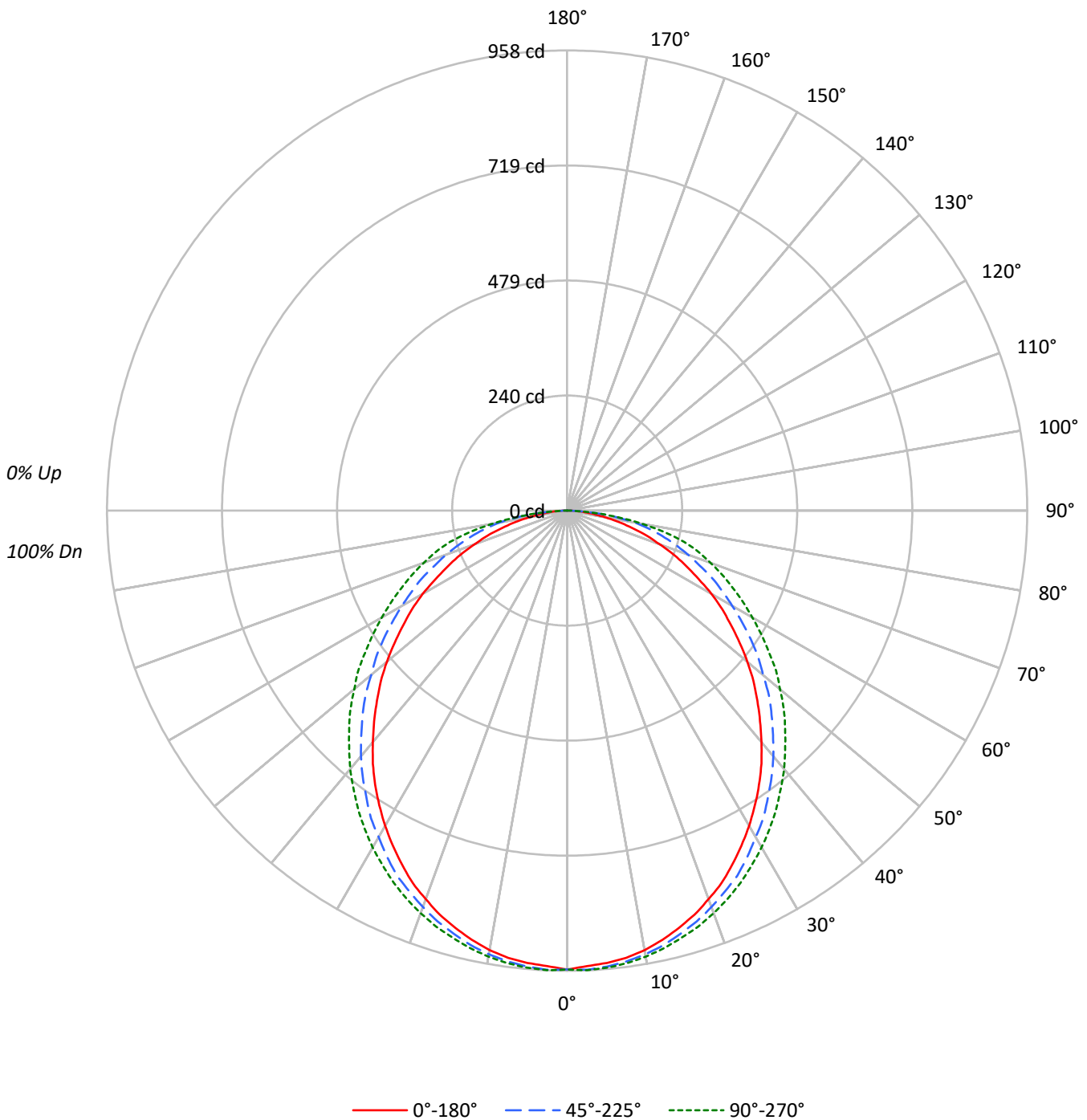
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2571	2571	2571
5°	2554	2574	2581
10°	2539	2563	2576
15°	2506	2540	2564
20°	2465	2515	2554
25°	2415	2489	2537
30°	2354	2439	2516
35°	2288	2394	2493
40°	2211	2347	2469
45°	2130	2291	2443
50°	2052	2229	2421
55°	1955	2189	2404
60°	1868	2136	2397
65°	1743	2123	2423
70°	1605	2104	2496
75°	1448	2135	2625
80°	1254	2197	2467
85°	1037	1843	1843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.3	3.4
10°-20°	257.1	9.6
20°-30°	384.7	14.4
30°-40°	455.6	17.1
40°-50°	464.3	17.4
50°-60°	416.1	15.6
60°-70°	325.8	12.2
70°-80°	210.1	7.9
80°-90°	62.1	2.3
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°	732.1	27.5
0°-40°	1187.7	44.5
0°-60°	2068.1	77.6
0°-90°	2666.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2666.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	955	955	955	955	955	
5°	945	948	953	954	955	90
15°	899	904	912	919	920	254
25°	814	821	838	850	855	374
35°	697	705	729	751	759	435
45°	560	572	602	633	642	432
55°	417	430	466	499	512	374
65°	274	290	333	366	381	272
75°	139	160	205	240	252	149
85°	34	46	60	60	60	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	955.3	955.3	955.3	955.3	955.3
2.5°	949.1	951.6	956.6	957.8	957.8
5°	945.4	947.9	952.9	954.1	955.3
7.5°	939.2	940.4	946.6	949.1	950.4
10°	929.2	931.7	937.9	941.7	942.9
12.5°	915.5	919.3	926.7	931.7	933.0
15°	899.4	904.3	911.8	919.3	920.5
17.5°	882.0	886.9	896.9	905.6	908.1
20°	860.8	867.0	878.2	888.2	891.9
22.5°	839.7	844.6	858.3	870.8	874.5
25°	813.5	821.0	838.4	849.6	854.6
27.5°	786.2	794.9	812.3	827.2	832.2
30°	757.6	766.3	784.9	803.6	809.8
32.5°	727.7	737.7	760.0	778.7	784.9
35°	696.6	705.3	728.9	751.3	758.8
37.5°	664.3	671.7	699.1	722.7	730.2
40°	629.4	639.4	668.0	695.4	702.8
42.5°	594.6	605.8	634.4	664.3	671.7
45°	559.8	572.2	602.1	633.2	641.9
47.5°	526.2	536.1	569.7	599.6	612.0
50°	490.1	500.1	532.4	566.0	578.4
52.5°	452.8	466.5	501.3	533.7	548.6
55°	416.7	430.4	466.5	498.8	512.5
57.5°	383.1	394.3	431.6	465.2	478.9
60°	347.1	357.0	396.8	432.9	445.3
62.5°	308.5	323.4	364.5	398.1	413.0
65°	273.7	289.8	333.4	365.7	380.6
67.5°	241.3	256.3	298.5	333.4	349.5
70°	204.0	223.9	267.4	302.3	317.2
72.5°	174.2	191.6	236.3	271.2	287.4
75°	139.3	160.5	205.3	240.1	252.5
77.5°	110.7	131.9	174.2	201.5	207.7
80°	80.9	102.0	141.8	155.5	159.2
82.5°	54.7	74.6	102.0	105.7	107.0
85°	33.6	46.0	59.7	59.7	59.7
87.5°	16.2	18.7	21.1	19.9	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)