

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: P390527

Luminaire Tested: **22CZ2-60VHE-RDP-UNV-L930-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: P390527
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-60VHE-RDP-UNV-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3390.5 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

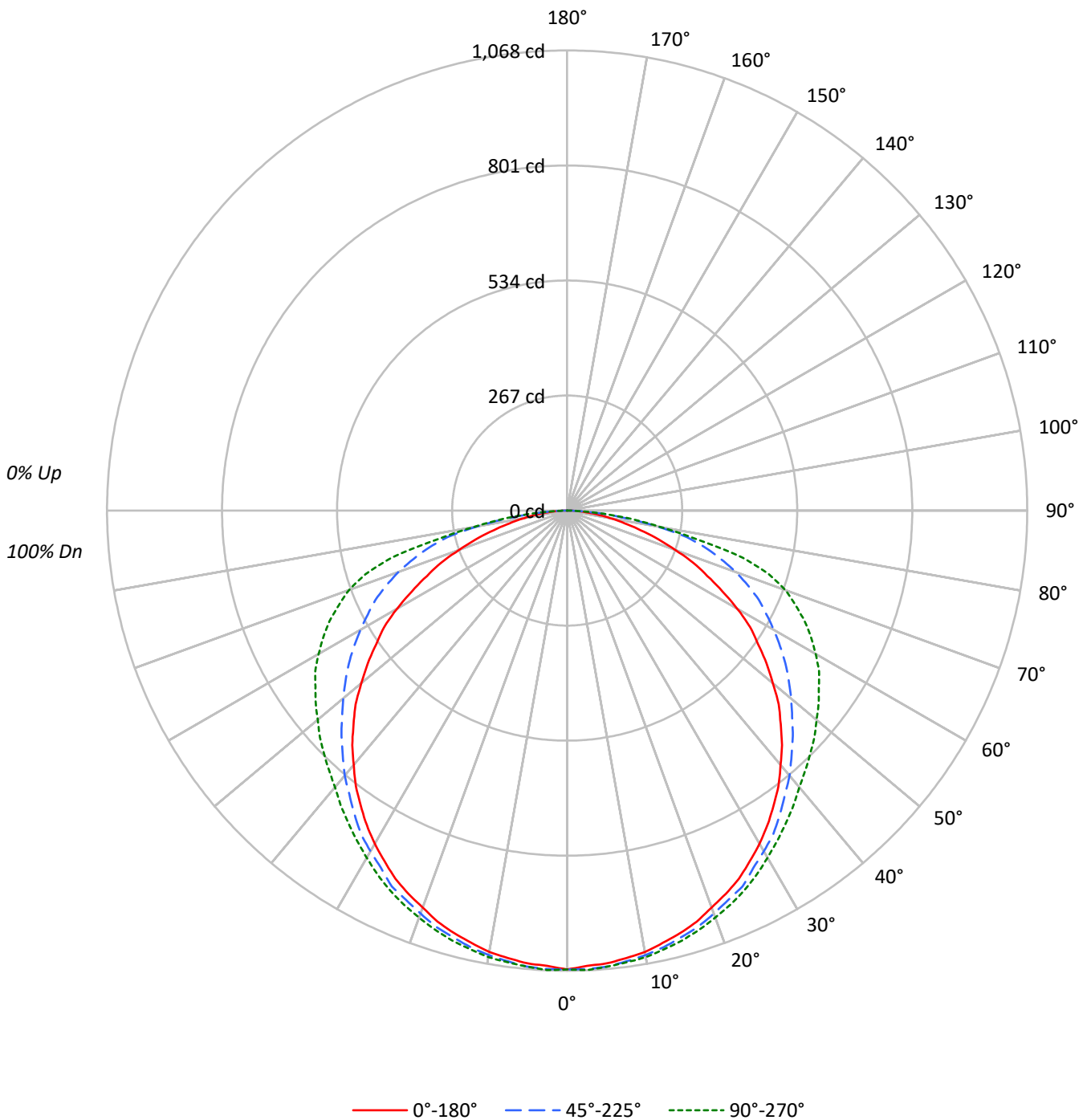
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2866	2866	2866
5°	2850	2870	2870
10°	2842	2863	2876
15°	2828	2856	2877
20°	2807	2850	2879
25°	2799	2859	2888
30°	2774	2837	2891
35°	2745	2827	2909
40°	2707	2821	2944
45°	2667	2819	3037
50°	2610	2840	3164
55°	2539	2902	3347
60°	2456	2980	3584
65°	2287	3129	3875
70°	2100	3277	4238
75°	1841	3449	4382
80°	1585	3285	3440
85°	1386	2387	2618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.7	3.0
10°-20°	289.3	8.5
20°-30°	441.3	13.0
30°-40°	538.9	15.9
40°-50°	576.1	17.0
50°-60°	556.1	16.4
60°-70°	478.7	14.1
70°-80°	323.9	9.6
80°-90°	85.5	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°	831.3	24.5
0°-40°	1370.2	40.4
0°-60°	2502.4	73.8
0°-90°	3390.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3390.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1055	1058	1062	1062	1062	100
15°	1015	1018	1025	1030	1033	286
25°	943	948	963	968	973	434
35°	836	843	860	878	885	523
45°	701	713	741	778	798	541
55°	541	559	619	681	713	485
65°	359	394	491	569	609	357
75°	177	234	332	399	422	190
85°	45	62	77	80	85	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1065.0	1065.0	1065.0	1065.0	1065.0
2.5°	1057.5	1060.0	1065.0	1065.0	1067.5
5°	1055.0	1057.5	1062.5	1062.5	1062.5
7.5°	1047.6	1050.1	1055.0	1057.5	1057.5
10°	1040.1	1042.6	1047.6	1050.1	1052.5
12.5°	1027.6	1030.1	1037.6	1042.6	1042.6
15°	1015.1	1017.6	1025.1	1030.1	1032.6
17.5°	1000.2	1005.2	1012.6	1017.6	1020.1
20°	980.2	985.2	995.2	1002.7	1005.2
22.5°	962.8	967.7	977.7	985.2	990.2
25°	942.8	947.8	962.8	967.7	972.7
27.5°	917.9	922.8	935.3	945.3	952.8
30°	892.9	897.9	912.9	925.3	930.3
32.5°	865.5	873.0	890.4	900.4	907.9
35°	835.6	843.0	860.5	878.0	885.4
37.5°	805.6	813.1	830.6	853.0	863.0
40°	770.7	780.7	803.1	833.1	838.0
42.5°	738.3	750.7	770.7	805.6	818.1
45°	700.9	713.3	740.8	778.2	798.1
47.5°	665.9	678.4	708.3	753.2	778.2
50°	623.5	641.0	678.4	730.8	755.7
52.5°	583.6	598.6	648.5	705.9	735.8
55°	541.2	558.7	618.6	680.9	713.3
57.5°	503.8	518.8	586.1	656.0	693.4
60°	456.4	476.4	553.7	628.5	665.9
62.5°	406.6	436.5	521.3	598.6	638.5
65°	359.2	394.1	491.4	568.7	608.6
67.5°	316.8	354.2	453.9	536.2	573.7
70°	266.9	314.3	416.5	496.3	538.7
72.5°	222.0	274.4	374.1	453.9	491.4
75°	177.1	234.5	331.7	399.1	421.5
77.5°	137.2	192.1	284.3	304.3	306.8
80°	102.3	152.1	212.0	214.5	222.0
82.5°	69.8	107.2	137.2	149.7	152.1
85°	44.9	62.4	77.3	79.8	84.8
87.5°	20.0	22.4	27.4	24.9	24.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)