

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: P390530

Luminaire Tested: **22CZ2-60VHE-RDP-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: P390530
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-L935-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3474.4 lumens
Efficiency: N/A
Efficacy: 78.8 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

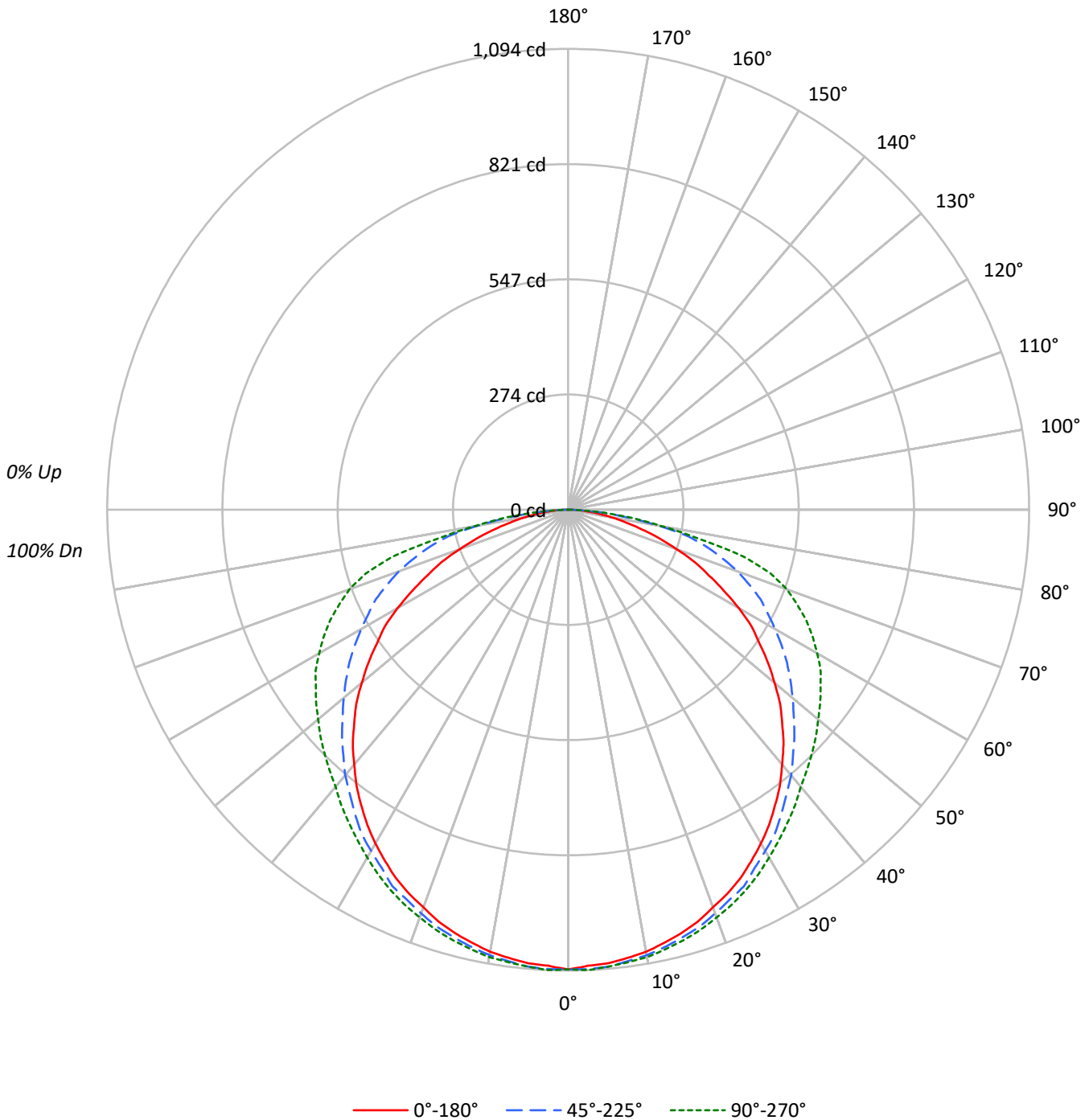
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2937	2937	2937
5°	2920	2941	2941
10°	2912	2933	2947
15°	2898	2927	2948
20°	2877	2920	2950
25°	2869	2929	2960
30°	2843	2907	2962
35°	2813	2897	2981
40°	2774	2891	3017
45°	2733	2889	3113
50°	2675	2910	3242
55°	2602	2974	3430
60°	2517	3054	3673
65°	2343	3206	3971
70°	2152	3358	4344
75°	1887	3534	4491
80°	1624	3367	3526
85°	1420	2445	2683



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.2	3.0
10°-20°	296.4	8.5
20°-30°	452.2	13.0
30°-40°	552.2	15.9
40°-50°	590.4	17.0
50°-60°	569.9	16.4
60°-70°	490.6	14.1
70°-80°	331.9	9.6
80°-90°	87.6	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°	851.9	24.5
0°-40°	1404.1	40.4
0°-60°	2564.4	73.8
0°-90°	3474.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3474.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1081	1084	1089	1089	1089	103
15°	1040	1043	1050	1056	1058	293
25°	966	971	987	992	997	445
35°	856	864	882	900	907	536
45°	718	731	759	797	818	554
55°	555	572	634	698	731	497
65°	368	404	504	583	624	366
75°	182	240	340	409	432	195
85°	46	64	79	82	87	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1091.4	1091.4	1091.4	1091.4	1091.4
2.5°	1083.7	1086.3	1091.4	1091.4	1093.9
5°	1081.1	1083.7	1088.8	1088.8	1088.8
7.5°	1073.5	1076.0	1081.1	1083.7	1083.7
10°	1065.8	1068.4	1073.5	1076.0	1078.6
12.5°	1053.0	1055.6	1063.3	1068.4	1068.4
15°	1040.3	1042.8	1050.5	1055.6	1058.1
17.5°	1024.9	1030.0	1037.7	1042.8	1045.4
20°	1004.5	1009.6	1019.8	1027.5	1030.0
22.5°	986.6	991.7	1001.9	1009.6	1014.7
25°	966.1	971.2	986.6	991.7	996.8
27.5°	940.6	945.7	958.5	968.7	976.4
30°	915.0	920.1	935.5	948.2	953.4
32.5°	886.9	894.6	912.5	922.7	930.3
35°	856.2	863.9	881.8	899.7	907.3
37.5°	825.6	833.2	851.1	874.1	884.3
40°	789.8	800.0	823.0	853.7	858.8
42.5°	756.5	769.3	789.8	825.6	838.3
45°	718.2	731.0	759.1	797.4	817.9
47.5°	682.4	695.2	725.9	771.9	797.4
50°	639.0	656.9	695.2	748.9	774.4
52.5°	598.1	613.4	664.5	723.3	754.0
55°	554.6	572.5	633.9	697.8	731.0
57.5°	516.3	531.6	600.6	672.2	710.5
60°	467.7	488.2	567.4	644.1	682.4
62.5°	416.6	447.3	534.2	613.4	654.3
65°	368.0	403.8	503.5	582.7	623.6
67.5°	324.6	362.9	465.2	549.5	587.9
70°	273.5	322.0	426.8	508.6	552.1
72.5°	227.5	281.1	383.4	465.2	503.5
75°	181.5	240.3	339.9	408.9	431.9
77.5°	140.6	196.8	291.4	311.8	314.4
80°	104.8	155.9	217.3	219.8	227.5
82.5°	71.6	109.9	140.6	153.4	155.9
85°	46.0	63.9	79.2	81.8	86.9
87.5°	20.4	23.0	28.1	25.6	25.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)