

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: P390408

Luminaire Tested: **22CZ2-50VHE-HRP-UNV-L935-CD1-SDWPD1-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: P390408
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: 22CZ2-50VHE-HRP-UNV-L935-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3567.6 lumens
Efficiency: N/A
Efficacy: 98.6 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

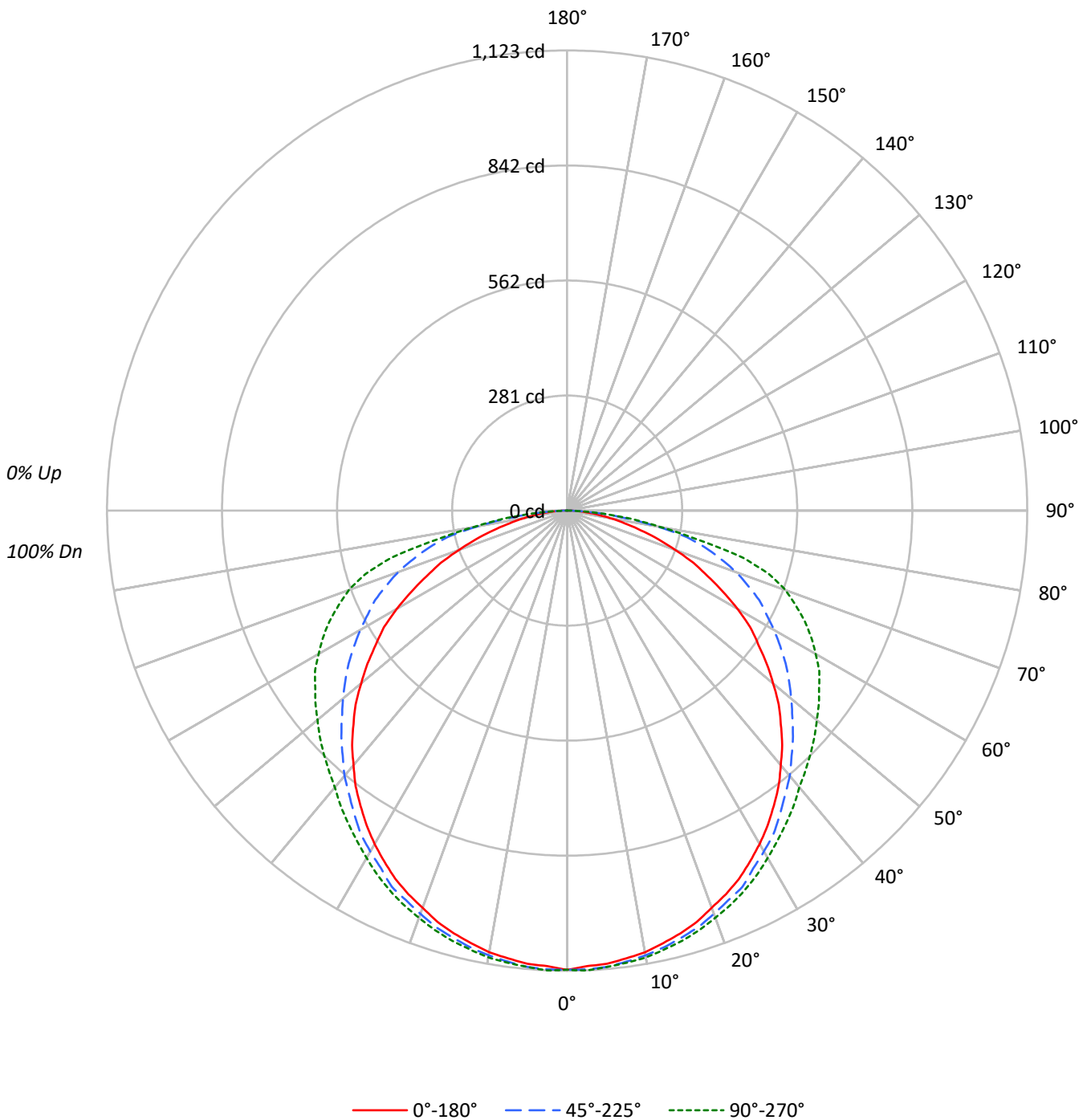
Input Watts (W): 36.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82					82			
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67					67			
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55					55			
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35					35			
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31					31			
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27					27			
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3016	3016	3016
5°	2999	3020	3020
10°	2990	3012	3026
15°	2976	3005	3027
20°	2954	2999	3029
25°	2945	3008	3039
30°	2920	2985	3042
35°	2888	2974	3061
40°	2849	2969	3098
45°	2807	2966	3196
50°	2747	2989	3329
55°	2672	3054	3521
60°	2585	3136	3771
65°	2406	3292	4078
70°	2209	3448	4460
75°	1937	3630	4611
80°	1667	3457	3620
85°	1457	2513	2754



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	3.0
10°-20°	304.4	8.5
20°-30°	464.4	13.0
30°-40°	567.0	15.9
40°-50°	606.3	17.0
50°-60°	585.2	16.4
60°-70°	503.7	14.1
70°-80°	340.8	9.6
80°-90°	89.9	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°	874.7	24.5
0°-40°	1441.7	40.4
0°-60°	2633.2	73.8
0°-90°	3567.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3567.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1110	1113	1118	1118	1118	105
15°	1068	1071	1079	1084	1086	301
25°	992	997	1013	1018	1024	457
35°	879	887	905	924	932	550
45°	738	751	780	819	840	569
55°	570	588	651	716	751	510
65°	378	415	517	598	640	376
75°	186	247	349	420	444	200
85°	47	66	81	84	89	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1120.6	1120.6	1120.6	1120.6	1120.6
2.5°	1112.8	1115.4	1120.6	1120.6	1123.3
5°	1110.1	1112.8	1118.0	1118.0	1118.0
7.5°	1102.3	1104.9	1110.1	1112.8	1112.8
10°	1094.4	1097.0	1102.3	1104.9	1107.5
12.5°	1081.3	1083.9	1091.8	1097.0	1097.0
15°	1068.2	1070.8	1078.7	1083.9	1086.5
17.5°	1052.4	1057.7	1065.5	1070.8	1073.4
20°	1031.4	1036.7	1047.2	1055.0	1057.7
22.5°	1013.0	1018.3	1028.8	1036.7	1041.9
25°	992.0	997.3	1013.0	1018.3	1023.5
27.5°	965.8	971.1	984.2	994.7	1002.5
30°	939.6	944.8	960.6	973.7	978.9
32.5°	910.7	918.6	936.9	947.4	955.3
35°	879.2	887.1	905.4	923.8	931.7
37.5°	847.7	855.6	873.9	897.6	908.1
40°	811.0	821.5	845.1	876.6	881.8
42.5°	776.8	790.0	811.0	847.7	860.8
45°	737.5	750.6	779.5	818.8	839.8
47.5°	700.7	713.9	745.3	792.6	818.8
50°	656.1	674.5	713.9	769.0	795.2
52.5°	614.1	629.9	682.4	742.7	774.2
55°	569.5	587.9	650.9	716.5	750.6
57.5°	530.1	545.9	616.7	690.2	729.6
60°	480.3	501.3	582.6	661.4	700.7
62.5°	427.8	459.3	548.5	629.9	671.9
65°	377.9	414.7	517.0	598.4	640.4
67.5°	333.3	372.7	477.7	564.3	603.6
70°	280.8	330.7	438.3	522.3	566.9
72.5°	233.6	288.7	393.7	477.7	517.0
75°	186.3	246.7	349.1	419.9	443.5
77.5°	144.3	202.1	299.2	320.2	322.8
80°	107.6	160.1	223.1	225.7	233.6
82.5°	73.5	112.9	144.3	157.5	160.1
85°	47.2	65.6	81.4	84.0	89.2
87.5°	21.0	23.6	28.9	26.2	26.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)