

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: P390360

Luminaire Tested: **22CZ2-44VHE-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: P390360  
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: 22CZ2-44VHE-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: 3235.0 lumens  
Efficiency: N/A  
Efficacy: 99.2 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

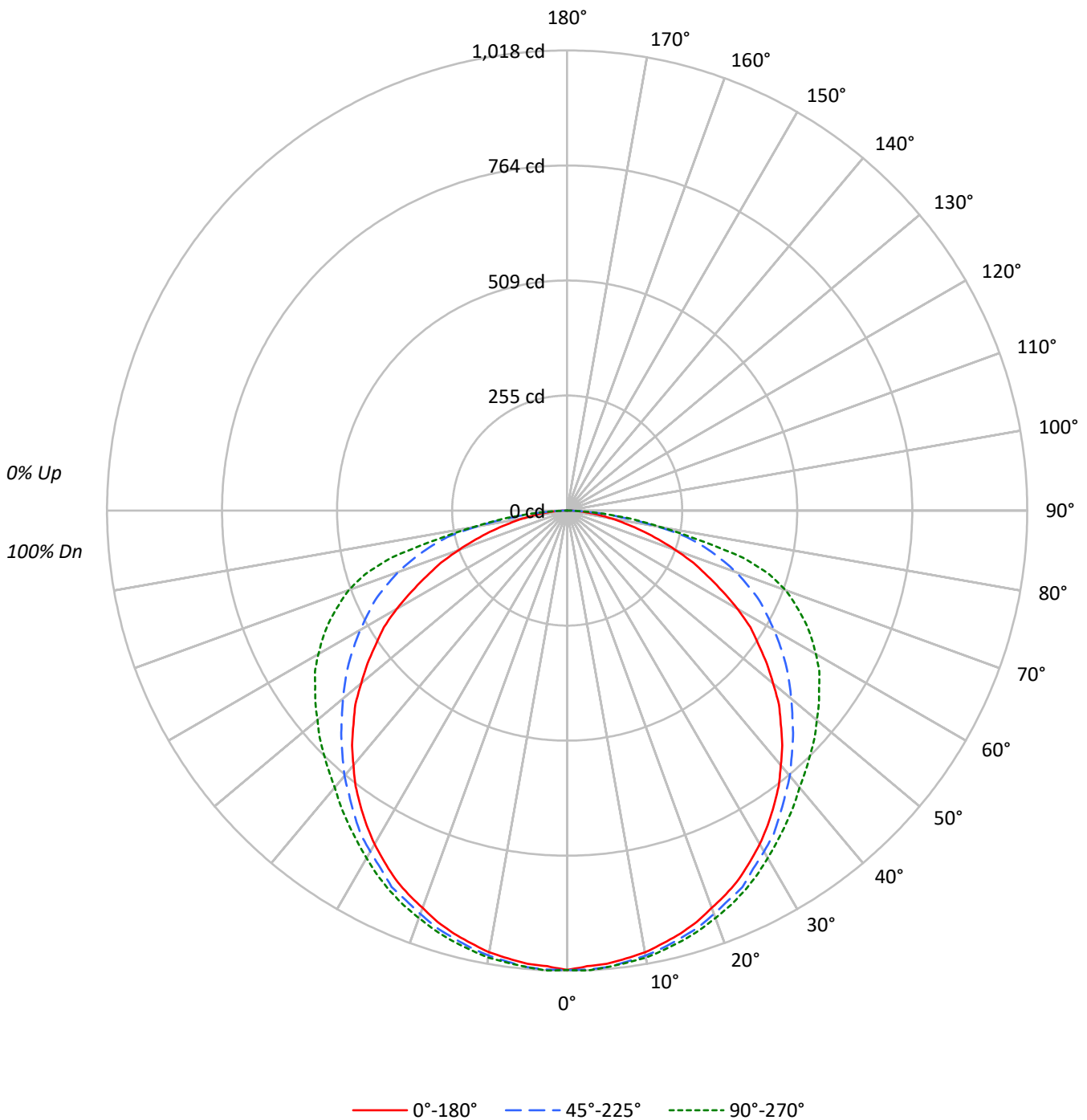
Input Watts (W): 32.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2735	2735	2735
5°	2719	2739	2739
10°	2712	2731	2744
15°	2698	2725	2745
20°	2678	2719	2747
25°	2671	2727	2756
30°	2647	2706	2758
35°	2619	2697	2775
40°	2583	2692	2809
45°	2545	2690	2898
50°	2491	2710	3019
55°	2423	2769	3193
60°	2344	2843	3420
65°	2182	2985	3698
70°	2003	3127	4044
75°	1757	3291	4182
80°	1512	3135	3282
85°	1321	2279	2498



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.1	3.0
10°-20°	276.0	8.5
20°-30°	421.1	13.0
30°-40°	514.1	15.9
40°-50°	549.7	17.0
50°-60°	530.6	16.4
60°-70°	456.8	14.1
70°-80°	309.0	9.6
80°-90°	81.6	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°	793.2	24.5
0°-40°	1307.3	40.4
0°-60°	2387.7	73.8
0°-90°	3235.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3235.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1007	1009	1014	1014	1014	96
15°	969	971	978	983	985	273
25°	900	904	919	923	928	414
35°	797	804	821	838	845	499
45°	669	681	707	742	762	516
55°	516	533	590	650	681	463
65°	343	376	469	543	581	341
75°	169	224	316	381	402	181
85°	43	60	74	76	81	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1016.2	1016.2	1016.2	1016.2	1016.2
2.5°	1009.0	1011.4	1016.2	1016.2	1018.5
5°	1006.7	1009.0	1013.8	1013.8	1013.8
7.5°	999.5	1001.9	1006.7	1009.0	1009.0
10°	992.4	994.8	999.5	1001.9	1004.3
12.5°	980.5	982.9	990.0	994.8	994.8
15°	968.6	971.0	978.1	982.9	985.2
17.5°	954.3	959.1	966.2	971.0	973.3
20°	935.3	940.0	949.5	956.7	959.1
22.5°	918.6	923.4	932.9	940.0	944.8
25°	899.6	904.3	918.6	923.4	928.1
27.5°	875.8	880.5	892.4	901.9	909.1
30°	852.0	856.7	871.0	882.9	887.7
32.5°	825.8	832.9	849.6	859.1	866.2
35°	797.2	804.4	821.0	837.7	844.8
37.5°	768.7	775.8	792.5	813.9	823.4
40°	735.4	744.9	766.3	794.8	799.6
42.5°	704.4	716.3	735.4	768.7	780.6
45°	668.7	680.6	706.8	742.5	761.5
47.5°	635.4	647.3	675.9	718.7	742.5
50°	594.9	611.6	647.3	697.3	721.1
52.5°	556.9	571.1	618.7	673.5	702.0
55°	516.4	533.1	590.2	649.7	680.6
57.5°	480.7	495.0	559.3	625.9	661.6
60°	435.5	454.5	528.3	599.7	635.4
62.5°	387.9	416.5	497.4	571.1	609.2
65°	342.7	376.0	468.8	542.6	580.7
67.5°	302.2	337.9	433.1	511.7	547.4
70°	254.6	299.9	397.4	473.6	514.0
72.5°	211.8	261.8	357.0	433.1	468.8
75°	169.0	223.7	316.5	380.8	402.2
77.5°	130.9	183.2	271.3	290.3	292.7
80°	97.6	145.2	202.3	204.7	211.8
82.5°	66.6	102.3	130.9	142.8	145.2
85°	42.8	59.5	73.8	76.2	80.9
87.5°	19.0	21.4	26.2	23.8	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)