

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: P390365

Luminaire Tested: **22CZ2-44VHE-HRP-UNV-L940-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: P390365  
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-L940-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3349.9 lumens  
Efficiency: N/A  
Efficacy: 102.8 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

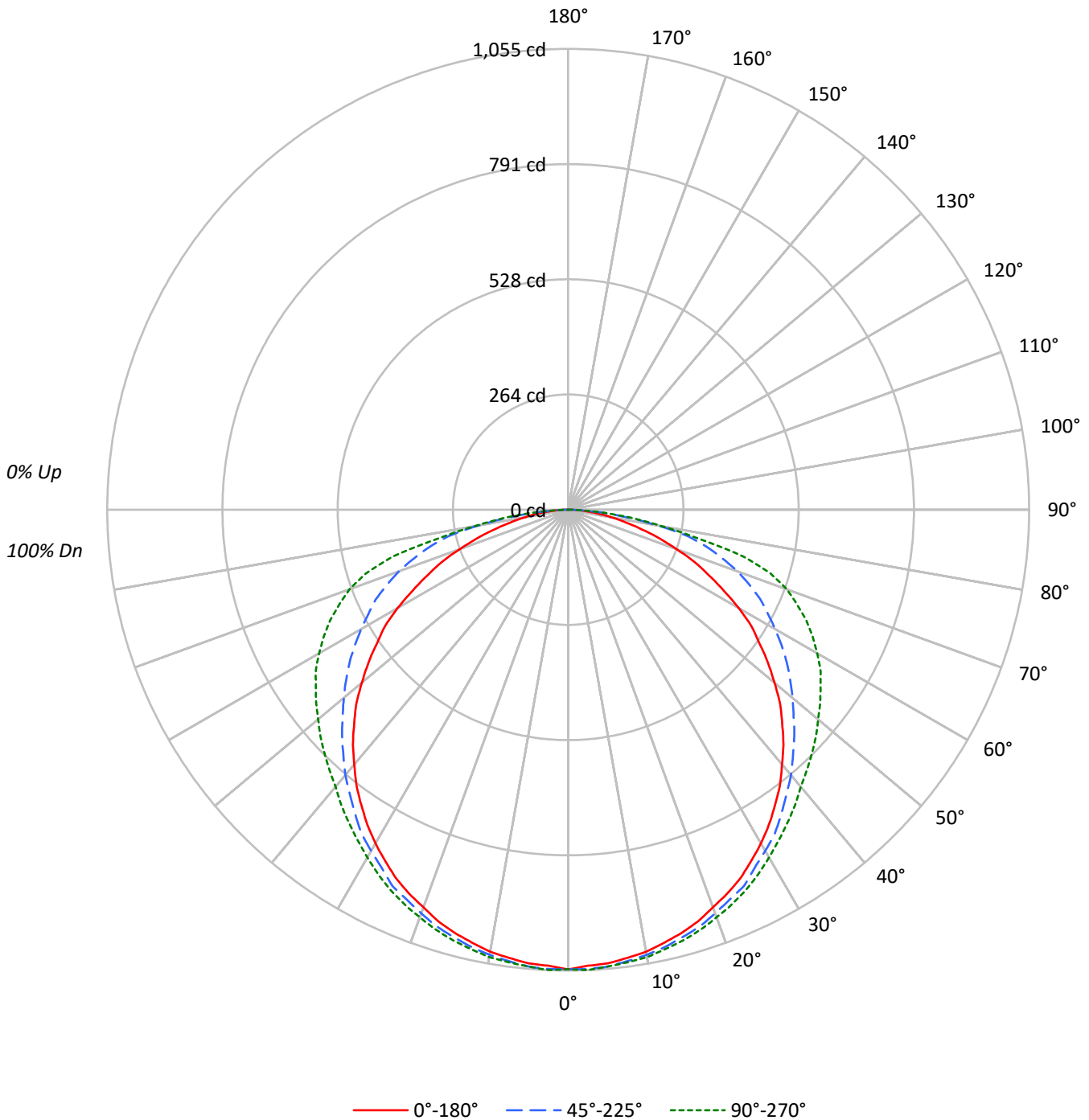
Input Watts (W): 32.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P390365

CATALOG NUMBER: 22CZ2-44VHE-HRP-UNV-L940-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P390365

CATALOG NUMBER: 22CZ2-44VHE-HRP-UNV-L940-CD1-U

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2832	2832	2832
5°	2816	2836	2836
10°	2808	2828	2842
15°	2794	2822	2842
20°	2773	2816	2844
25°	2766	2824	2854
30°	2741	2802	2856
35°	2712	2793	2874
40°	2675	2787	2909
45°	2635	2785	3001
50°	2579	2806	3126
55°	2509	2867	3307
60°	2427	2944	3541
65°	2260	3091	3829
70°	2075	3238	4188
75°	1820	3408	4330
80°	1565	3247	3398
85°	1371	2359	2587



TEST NUMBER: P390365

CATALOG NUMBER: 22CZ2-44VHE-HRP-UNV-L940-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.5	3.0
10°-20°	285.8	8.5
20°-30°	436.0	13.0
30°-40°	532.4	15.9
40°-50°	569.3	17.0
50°-60°	549.5	16.4
60°-70°	473.0	14.1
70°-80°	320.0	9.6
80°-90°	84.4	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°	821.4	24.5
0°-40°	1353.8	40.4
0°-60°	2472.5	73.8
0°-90°	3349.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3349.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1052	1052	1052	1052	1052	
5°	1042	1045	1050	1050	1050	99
15°	1003	1005	1013	1018	1020	283
25°	932	936	951	956	961	429
35°	826	833	850	867	875	517
45°	692	705	732	769	789	535
55°	535	552	611	673	705	479
65°	355	389	486	562	601	353
75°	175	232	328	394	416	188
85°	44	62	76	79	84	50
90°	0	0	0	0	0	



TEST NUMBER: P390365

CATALOG NUMBER: 22CZ2-44VHE-HRP-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1052.3	1052.3	1052.3	1052.3	1052.3
2.5°	1044.9	1047.3	1052.3	1052.3	1054.7
5°	1042.4	1044.9	1049.8	1049.8	1049.8
7.5°	1035.0	1037.5	1042.4	1044.9	1044.9
10°	1027.6	1030.1	1035.0	1037.5	1039.9
12.5°	1015.3	1017.8	1025.2	1030.1	1030.1
15°	1003.0	1005.4	1012.8	1017.8	1020.2
17.5°	988.2	993.1	1000.5	1005.4	1007.9
20°	968.5	973.4	983.3	990.7	993.1
22.5°	951.2	956.2	966.0	973.4	978.3
25°	931.5	936.4	951.2	956.2	961.1
27.5°	906.9	911.8	924.1	934.0	941.4
30°	882.2	887.2	901.9	914.3	919.2
32.5°	855.1	862.5	879.8	889.6	897.0
35°	825.5	832.9	850.2	867.4	874.8
37.5°	796.0	803.4	820.6	842.8	852.7
40°	761.5	771.3	793.5	823.1	828.0
42.5°	729.4	741.8	761.5	796.0	808.3
45°	692.5	704.8	731.9	768.9	788.6
47.5°	658.0	670.3	699.9	744.2	768.9
50°	616.1	633.3	670.3	722.0	746.7
52.5°	576.6	591.4	640.7	697.4	727.0
55°	534.8	552.0	611.1	672.8	704.8
57.5°	497.8	512.6	579.1	648.1	685.1
60°	451.0	470.7	547.1	621.0	658.0
62.5°	401.7	431.3	515.0	591.4	630.9
65°	354.9	389.4	485.5	561.9	601.3
67.5°	313.0	349.9	448.5	529.8	566.8
70°	263.7	310.5	411.5	490.4	532.3
72.5°	219.3	271.1	369.6	448.5	485.5
75°	175.0	231.6	327.8	394.3	416.5
77.5°	135.5	189.8	280.9	300.6	303.1
80°	101.0	150.3	209.5	211.9	219.3
82.5°	69.0	106.0	135.5	147.9	150.3
85°	44.4	61.6	76.4	78.9	83.8
87.5°	19.7	22.2	27.1	24.6	24.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)