

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: P390358

Luminaire Tested: **22CZ2-44VHE-HRP-UNV-L930-CD1-SWPD1-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: P390358
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-L930-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3195.5 lumens
Efficiency: N/A
Efficacy: 98.0 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

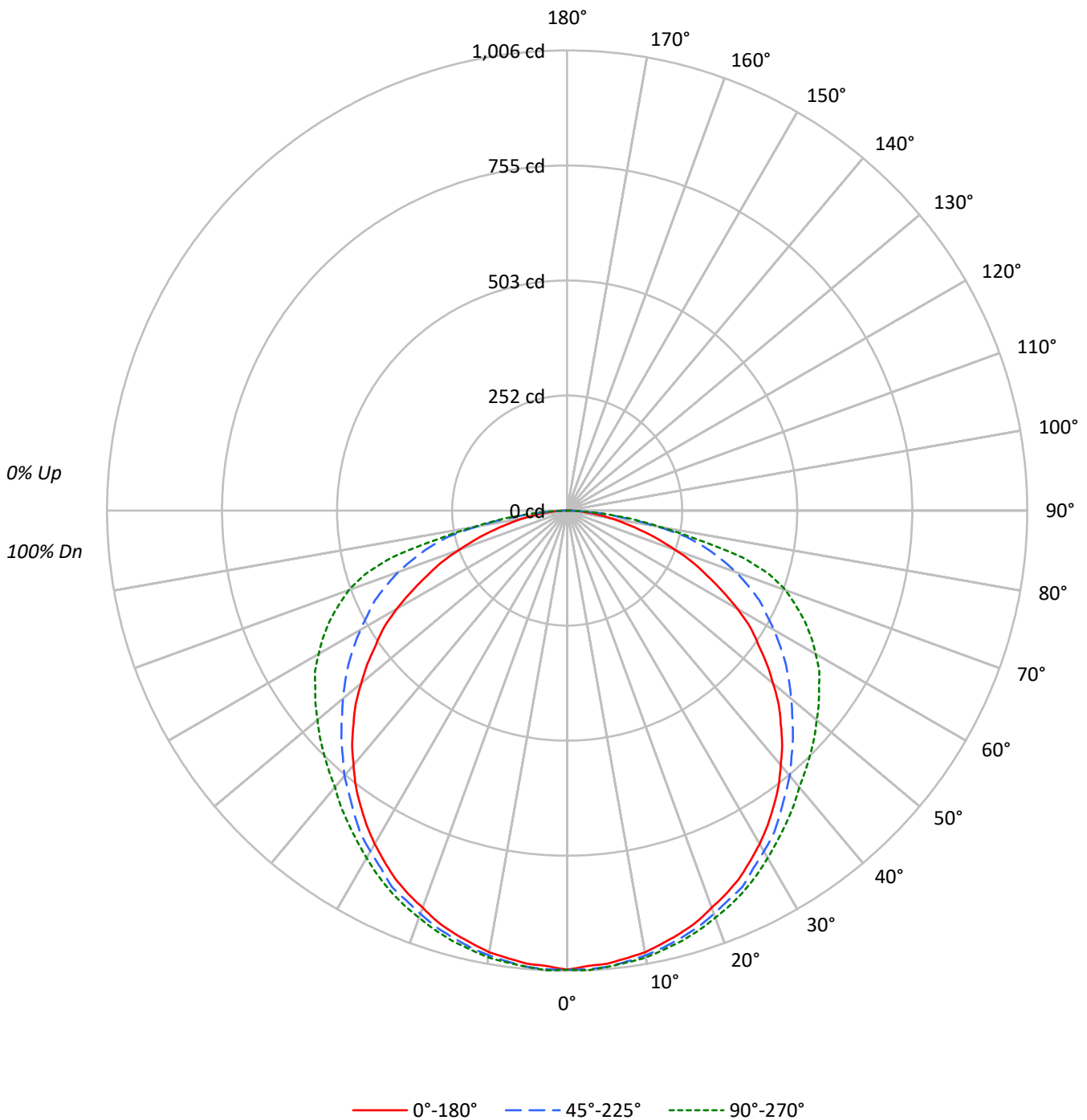
Input Watts (W): 32.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P390358

CATALOG NUMBER: 22CZ2-44VHE-HRP-UNV-L930-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P390358

CATALOG NUMBER: 22CZ2-44VHE-HRP-UNV-L930-CD1-SWPD1-U

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°	2701	2701	2701
5°	2686	2705	2705
10°	2679	2698	2711
15°	2665	2692	2711
20°	2645	2686	2713
25°	2638	2694	2722
30°	2615	2673	2724
35°	2587	2664	2741
40°	2552	2659	2774
45°	2514	2657	2863
50°	2460	2677	2982
55°	2393	2735	3154
60°	2315	2809	3378
65°	2155	2949	3652
70°	1979	3089	3995
75°	1735	3250	4131
80°	1494	3096	3242
85°	1306	2251	2467



TEST NUMBER: P390358

CATALOG NUMBER: 22CZ2-44VHE-HRP-UNV-L930-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	3.0
10°-20°	272.6	8.5
20°-30°	415.9	13.0
30°-40°	507.9	15.9
40°-50°	543.0	17.0
50°-60°	524.1	16.4
60°-70°	451.2	14.1
70°-80°	305.3	9.6
80°-90°	80.6	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°	783.5	24.5
0°-40°	1291.4	40.4
0°-60°	2358.5	73.8
0°-90°	3195.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3195.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1004	1004	1004	1004	1004	
5°	994	997	1001	1001	1001	94
15°	957	959	966	971	973	270
25°	889	893	907	912	917	409
35°	788	794	811	828	834	493
45°	661	672	698	733	752	510
55°	510	527	583	642	672	457
65°	338	371	463	536	574	337
75°	167	221	313	376	397	179
85°	42	59	73	75	80	48
90°	0	0	0	0	0	



TEST NUMBER: P390358

CATALOG NUMBER: 22CZ2-44VHE-HRP-UNV-L930-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1003.8	1003.8	1003.8	1003.8	1003.8
2.5°	996.7	999.1	1003.8	1003.8	1006.1
5°	994.4	996.7	1001.4	1001.4	1001.4
7.5°	987.3	989.7	994.4	996.7	996.7
10°	980.3	982.6	987.3	989.7	992.0
12.5°	968.5	970.9	977.9	982.6	982.6
15°	956.7	959.1	966.2	970.9	973.2
17.5°	942.6	947.3	954.4	959.1	961.4
20°	923.8	928.5	937.9	945.0	947.3
22.5°	907.4	912.1	921.5	928.5	933.2
25°	888.6	893.3	907.4	912.1	916.8
27.5°	865.1	869.8	881.5	890.9	898.0
30°	841.6	846.3	860.4	872.1	876.8
32.5°	815.7	822.8	839.2	848.6	855.7
35°	787.5	794.5	811.0	827.5	834.5
37.5°	759.3	766.3	782.8	804.0	813.4
40°	726.4	735.8	756.9	785.1	789.8
42.5°	695.8	707.6	726.4	759.3	771.0
45°	660.6	672.3	698.2	733.4	752.2
47.5°	627.6	639.4	667.6	709.9	733.4
50°	587.7	604.1	639.4	688.8	712.3
52.5°	550.1	564.2	611.2	665.3	693.5
55°	510.1	526.6	583.0	641.7	672.3
57.5°	474.8	489.0	552.4	618.2	653.5
60°	430.2	449.0	521.9	592.4	627.6
62.5°	383.2	411.4	491.3	564.2	601.8
65°	338.5	371.4	463.1	536.0	573.6
67.5°	298.5	333.8	427.8	505.4	540.7
70°	251.5	296.2	392.6	467.8	507.8
72.5°	209.2	258.6	352.6	427.8	463.1
75°	166.9	221.0	312.6	376.1	397.3
77.5°	129.3	181.0	268.0	286.8	289.1
80°	96.4	143.4	199.8	202.2	209.2
82.5°	65.8	101.1	129.3	141.0	143.4
85°	42.3	58.8	72.9	75.2	79.9
87.5°	18.8	21.2	25.9	23.5	23.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)