

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: P390319

Luminaire Tested: **22CZ2-39VHE-HRP-UNV-L950-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: P390319
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: 22CZ2-39VHE-HRP-UNV-L950-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3099.6 lumens
Efficiency: N/A
Efficacy: 108.4 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

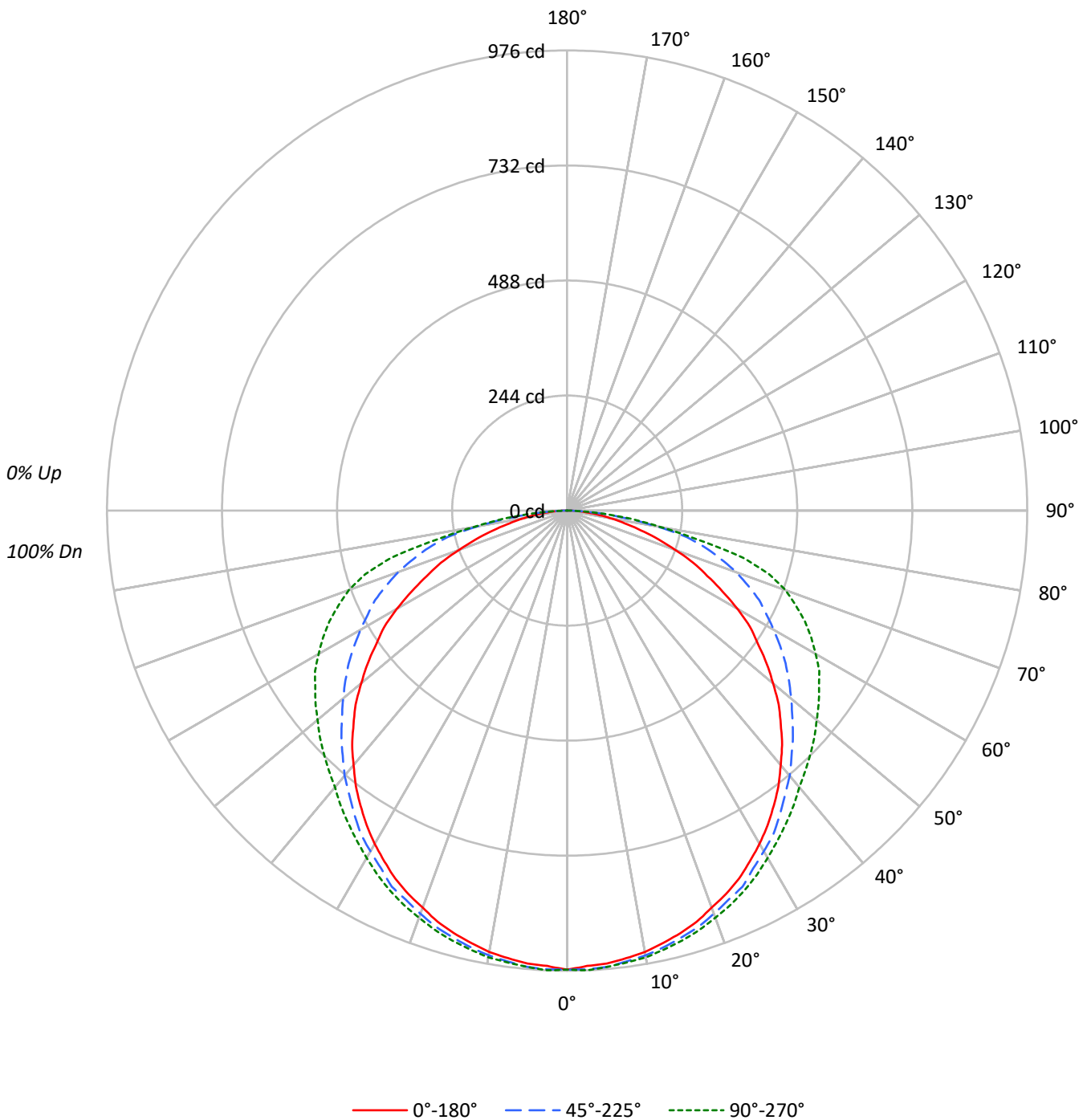
Input Watts (W): 28.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2620	2620	2620
5°	2605	2624	2624
10°	2598	2617	2629
15°	2585	2611	2630
20°	2566	2605	2631
25°	2559	2613	2640
30°	2536	2593	2643
35°	2509	2584	2659
40°	2475	2579	2691
45°	2438	2577	2777
50°	2386	2596	2892
55°	2321	2653	3059
60°	2246	2724	3277
65°	2090	2860	3543
70°	1920	2996	3875
75°	1683	3153	4007
80°	1449	3003	3144
85°	1266	2183	2393



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.1	3.0
10°-20°	264.4	8.5
20°-30°	403.4	13.0
30°-40°	492.6	15.9
40°-50°	526.7	17.0
50°-60°	508.4	16.4
60°-70°	437.6	14.1
70°-80°	296.1	9.6
80°-90°	78.1	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°	760.0	24.5
0°-40°	1252.6	40.4
0°-60°	2287.7	73.8
0°-90°	3099.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3099.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	964	967	971	971	971	92
15°	928	930	937	942	944	262
25°	862	866	880	885	889	397
35°	764	771	787	803	810	478
45°	641	652	677	711	730	495
55°	495	511	566	622	652	443
65°	328	360	449	520	556	327
75°	162	214	303	365	385	174
85°	41	57	71	73	78	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	973.6	973.6	973.6	973.6	973.6
2.5°	966.8	969.1	973.6	973.6	975.9
5°	964.5	966.8	971.4	971.4	971.4
7.5°	957.7	960.0	964.5	966.8	966.8
10°	950.8	953.1	957.7	960.0	962.2
12.5°	939.4	941.7	948.6	953.1	953.1
15°	928.0	930.3	937.2	941.7	944.0
17.5°	914.4	918.9	925.8	930.3	932.6
20°	896.1	900.7	909.8	916.6	918.9
22.5°	880.2	884.7	893.8	900.7	905.2
25°	861.9	866.5	880.2	884.7	889.3
27.5°	839.1	843.7	855.1	864.2	871.0
30°	816.3	820.9	834.5	845.9	850.5
32.5°	791.2	798.1	814.0	823.1	830.0
35°	763.9	770.7	786.7	802.6	809.5
37.5°	736.5	743.3	759.3	779.8	788.9
40°	704.6	713.7	734.2	761.6	766.1
42.5°	674.9	686.3	704.6	736.5	747.9
45°	640.7	652.1	677.2	711.4	729.7
47.5°	608.8	620.2	647.6	688.6	711.4
50°	570.0	586.0	620.2	668.1	690.9
52.5°	533.6	547.2	592.8	645.3	672.7
55°	494.8	510.8	565.5	622.5	652.1
57.5°	460.6	474.3	535.8	599.7	633.9
60°	417.3	435.5	506.2	574.6	608.8
62.5°	371.7	399.0	476.6	547.2	583.7
65°	328.3	360.3	449.2	519.9	556.4
67.5°	289.6	323.8	415.0	490.2	524.4
70°	244.0	287.3	380.8	453.8	492.5
72.5°	202.9	250.8	342.0	415.0	449.2
75°	161.9	214.3	303.3	364.8	385.4
77.5°	125.4	175.6	259.9	278.2	280.5
80°	93.5	139.1	193.8	196.1	202.9
82.5°	63.8	98.0	125.4	136.8	139.1
85°	41.0	57.0	70.7	73.0	77.5
87.5°	18.2	20.5	25.1	22.8	22.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)