

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: P390213

Luminaire Tested: **22CZ2-29VHE-HRP-UNV-L930-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: P390213
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: 22CZ2-29VHE-HRP-UNV-L930-CD1-SDWPD1-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: 2127.8 lumens
Efficiency: N/A
Efficacy: 98.1 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

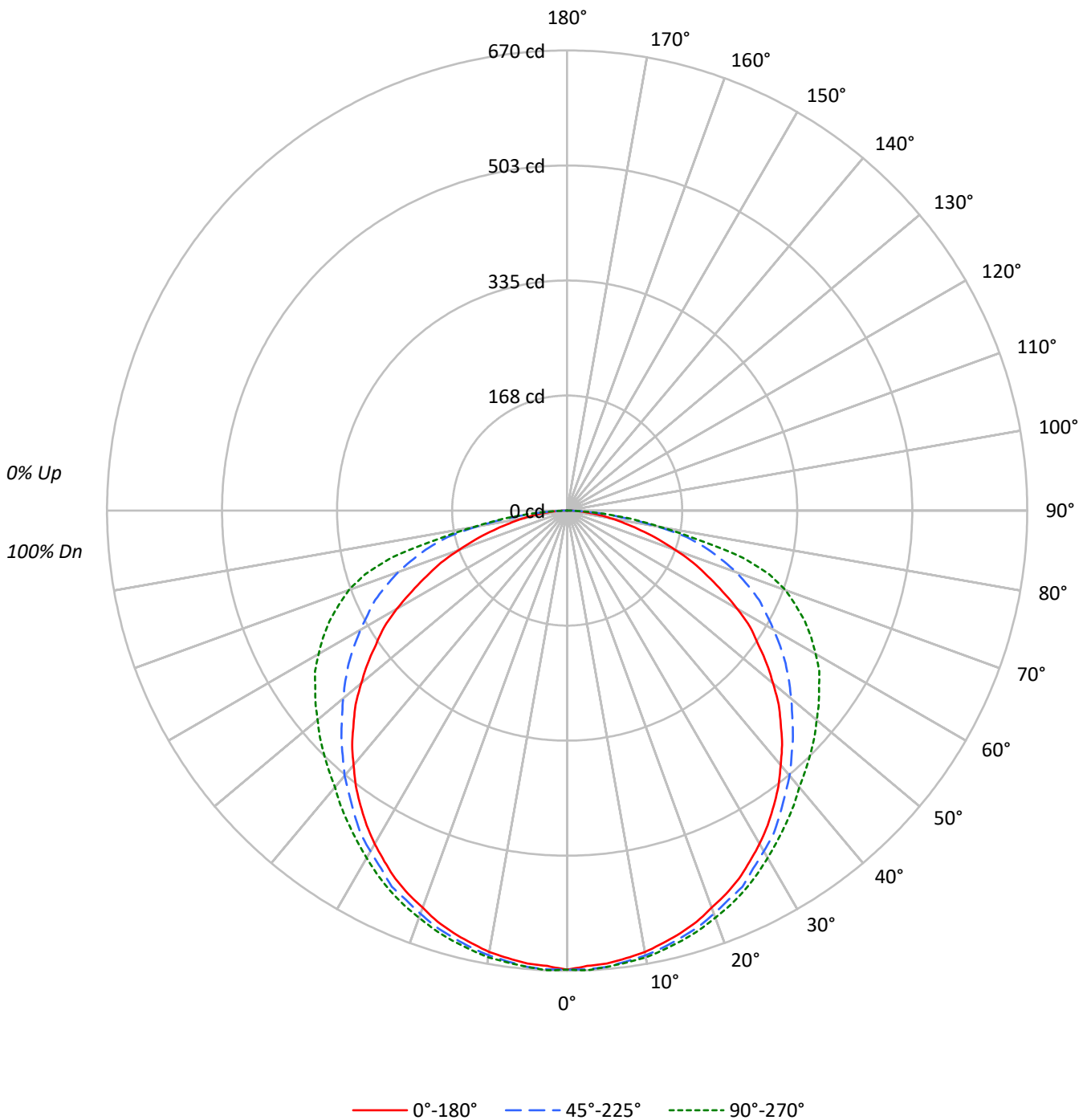
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1799	1799	1799
5°	1789	1801	1801
10°	1783	1796	1805
15°	1775	1792	1805
20°	1762	1789	1806
25°	1757	1794	1813
30°	1741	1780	1814
35°	1723	1774	1826
40°	1699	1770	1847
45°	1674	1769	1906
50°	1638	1783	1986
55°	1594	1821	2100
60°	1541	1870	2249
65°	1435	1964	2432
70°	1318	2057	2660
75°	1155	2165	2750
80°	995	2061	2159
85°	871	1497	1643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.2	3.0
10°-20°	181.5	8.5
20°-30°	277.0	13.0
30°-40°	338.2	15.9
40°-50°	361.6	17.0
50°-60°	349.0	16.4
60°-70°	300.4	14.1
70°-80°	203.3	9.6
80°-90°	53.6	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°	521.7	24.5
0°-40°	859.9	40.4
0°-60°	1570.5	73.8
0°-90°	2127.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2127.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	668	668	668	668	668	
5°	662	664	667	667	667	63
15°	637	639	643	646	648	180
25°	592	595	604	607	610	272
35°	524	529	540	551	556	328
45°	440	448	465	488	501	339
55°	340	351	388	427	448	304
65°	225	247	308	357	382	224
75°	111	147	208	250	264	119
85°	28	39	48	50	53	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	668.4	668.4	668.4	668.4	668.4
2.5°	663.7	665.2	668.4	668.4	669.9
5°	662.1	663.7	666.8	666.8	666.8
7.5°	657.4	659.0	662.1	663.7	663.7
10°	652.7	654.3	657.4	659.0	660.6
12.5°	644.9	646.5	651.2	654.3	654.3
15°	637.1	638.6	643.3	646.5	648.0
17.5°	627.7	630.8	635.5	638.6	640.2
20°	615.2	618.3	624.6	629.2	630.8
22.5°	604.2	607.3	613.6	618.3	621.4
25°	591.7	594.8	604.2	607.3	610.5
27.5°	576.0	579.2	587.0	593.2	597.9
30°	560.4	563.5	572.9	580.7	583.9
32.5°	543.2	547.9	558.8	565.1	569.8
35°	524.4	529.1	540.0	551.0	555.7
37.5°	505.6	510.3	521.2	535.3	541.6
40°	483.7	489.9	504.0	522.8	525.9
42.5°	463.3	471.2	483.7	505.6	513.4
45°	439.8	447.7	464.9	488.4	500.9
47.5°	417.9	425.8	444.5	472.7	488.4
50°	391.3	402.3	425.8	458.6	474.3
52.5°	366.3	375.7	407.0	443.0	461.8
55°	339.7	350.6	388.2	427.3	447.7
57.5°	316.2	325.6	367.8	411.7	435.2
60°	286.4	299.0	347.5	394.5	417.9
62.5°	255.1	273.9	327.1	375.7	400.7
65°	225.4	247.3	308.4	356.9	381.9
67.5°	198.8	222.3	284.9	336.5	360.0
70°	167.5	197.2	261.4	311.5	338.1
72.5°	139.3	172.2	234.8	284.9	308.4
75°	111.1	147.1	208.2	250.4	264.5
77.5°	86.1	120.5	178.4	191.0	192.5
80°	64.2	95.5	133.0	134.6	139.3
82.5°	43.8	67.3	86.1	93.9	95.5
85°	28.2	39.1	48.5	50.1	53.2
87.5°	12.5	14.1	17.2	15.7	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)