

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: P272009

Luminaire Tested: **22CZ2-20HE-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

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: P272009
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20HE-S-UNV-L930-CD1-U
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (112) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1778.5 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

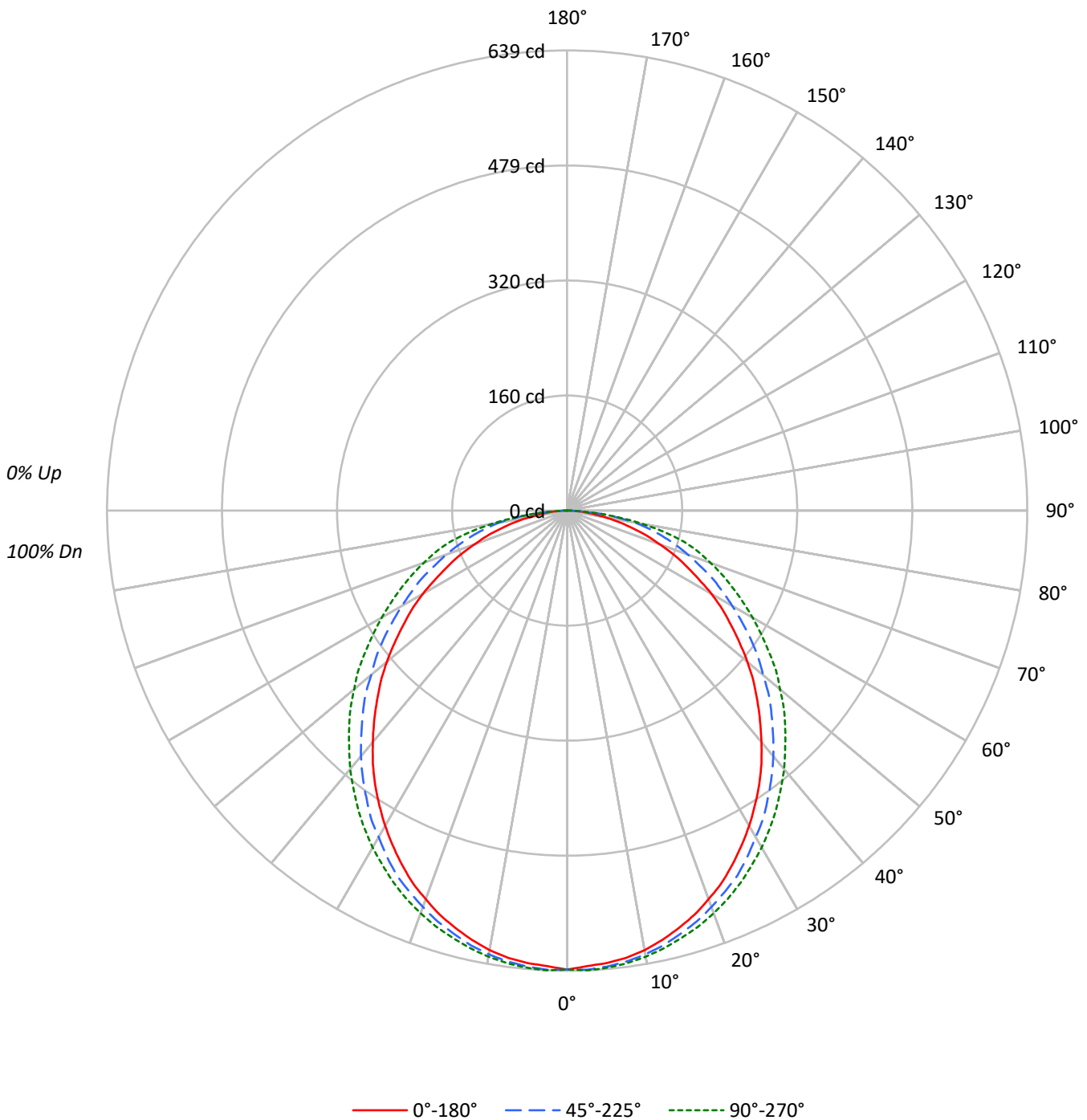
Input Watts (W): 16
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1715	1715	1715
5°	1704	1717	1722
10°	1694	1710	1719
15°	1672	1694	1711
20°	1644	1678	1704
25°	1611	1661	1693
30°	1570	1627	1679
35°	1527	1598	1663
40°	1475	1565	1647
45°	1421	1528	1630
50°	1369	1487	1616
55°	1304	1460	1604
60°	1246	1425	1599
65°	1163	1416	1617
70°	1071	1404	1665
75°	966	1423	1752
80°	835	1466	1646
85°	692	1229	1229



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.3	3.4
10°-20°	171.5	9.6
20°-30°	256.6	14.4
30°-40°	303.9	17.1
40°-50°	309.7	17.4
50°-60°	277.6	15.6
60°-70°	217.3	12.2
70°-80°	140.1	7.9
80°-90°	41.4	2.3
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°	488.4	27.5
0°-40°	792.3	44.5
0°-60°	1379.6	77.6
0°-90°	1778.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1778.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	637	637	637	637	637	
5°	631	632	636	636	637	60
15°	600	603	608	613	614	169
25°	543	548	559	567	570	250
35°	465	470	486	501	506	290
45°	373	382	402	422	428	288
55°	278	287	311	333	342	249
65°	183	193	222	244	254	181
75°	93	107	137	160	168	100
85°	22	31	40	40	40	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	637.3	637.3	637.3	637.3	637.3
2.5°	633.1	634.8	638.1	639.0	639.0
5°	630.7	632.3	635.6	636.5	637.3
7.5°	626.5	627.3	631.5	633.1	634.0
10°	619.9	621.5	625.7	628.2	629.0
12.5°	610.7	613.2	618.2	621.5	622.4
15°	600.0	603.3	608.2	613.2	614.1
17.5°	588.3	591.7	598.3	604.1	605.8
20°	574.2	578.4	585.8	592.5	595.0
22.5°	560.1	563.4	572.6	580.9	583.4
25°	542.7	547.7	559.3	566.8	570.1
27.5°	524.4	530.2	541.9	551.8	555.1
30°	505.4	511.2	523.6	536.1	540.2
32.5°	485.4	492.1	507.0	519.5	523.6
35°	464.7	470.5	486.3	501.2	506.2
37.5°	443.1	448.1	466.4	482.1	487.1
40°	419.9	426.5	445.6	463.9	468.8
42.5°	396.6	404.1	423.2	443.1	448.1
45°	373.4	381.7	401.6	422.4	428.2
47.5°	351.0	357.6	380.1	400.0	408.3
50°	326.9	333.6	355.2	377.6	385.9
52.5°	302.0	311.2	334.4	356.0	365.9
55°	278.0	287.1	311.2	332.8	341.9
57.5°	255.6	263.0	287.9	310.3	319.5
60°	231.5	238.2	264.7	288.8	297.1
62.5°	205.8	215.7	243.1	265.5	275.5
65°	182.6	193.3	222.4	244.0	253.9
67.5°	161.0	170.9	199.2	222.4	233.2
70°	136.1	149.4	178.4	201.6	211.6
72.5°	116.2	127.8	157.7	180.9	191.7
75°	92.9	107.0	136.9	160.2	168.5
77.5°	73.9	88.0	116.2	134.4	138.6
80°	53.9	68.0	94.6	103.7	106.2
82.5°	36.5	49.8	68.0	70.5	71.4
85°	22.4	30.7	39.8	39.8	39.8
87.5°	10.8	12.4	14.1	13.3	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)