

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: P294834

Luminaire Tested: **22CZ2-24HE-HRP-UNV-L950-CD1-U**

Issue Date: 12/2/2019

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: P294834
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24HE-HRP-UNV-L950-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (112) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1763.8 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

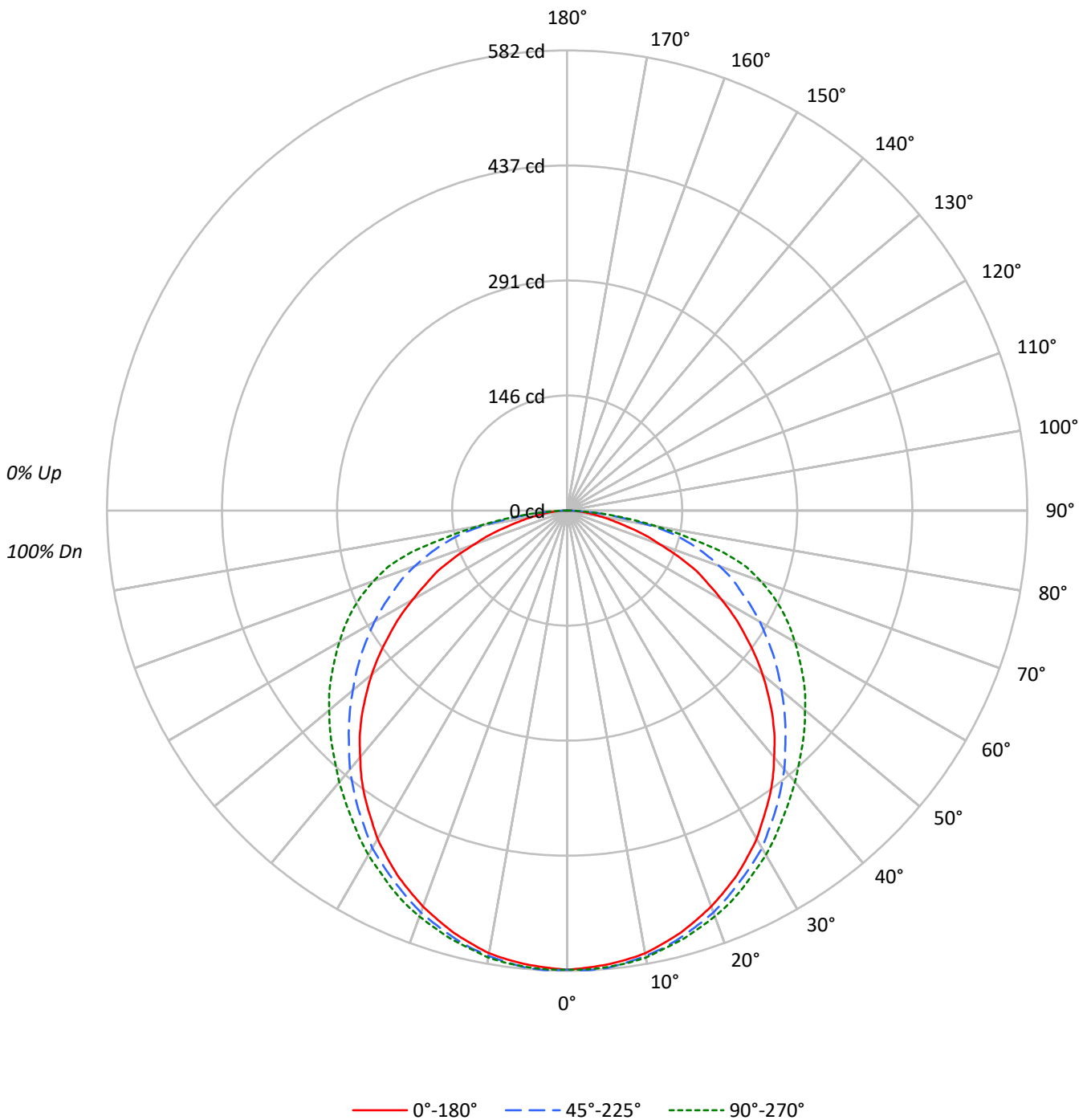
Input Watts (W): 19.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
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	101	96	93	96	93	90	92	90	87	89	87	84
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1563	1563	1563
5°	1557	1569	1566
10°	1554	1563	1569
15°	1541	1556	1565
20°	1526	1549	1564
25°	1510	1536	1563
30°	1490	1532	1563
35°	1462	1513	1561
40°	1430	1501	1575
45°	1397	1486	1601
50°	1351	1481	1644
55°	1289	1493	1707
60°	1216	1515	1791
65°	1148	1545	1913
70°	980	1611	2049
75°	821	1677	2128
80°	673	1621	1776
85°	584	1201	1306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.0	3.1
10°-20°	157.5	8.9
20°-30°	238.6	13.5
30°-40°	288.2	16.3
40°-50°	302.8	17.2
50°-60°	284.9	16.2
60°-70°	237.5	13.5
70°-80°	157.4	8.9
80°-90°	42.0	2.4
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°	451.1	25.6
0°-40°	739.3	41.9
0°-60°	1327.0	75.2
0°-90°	1763.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1763.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	581	581	581	581	581	
5°	576	578	581	581	580	55
15°	553	555	559	561	562	156
25°	508	512	517	524	526	234
35°	445	450	461	471	475	278
45°	367	373	390	411	421	283
55°	275	287	318	350	364	246
65°	180	196	243	283	300	175
75°	79	110	161	195	205	86
85°	19	29	39	42	42	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	580.8	580.8	580.8	580.8	580.8
2.5°	578.6	579.7	581.9	581.9	580.8
5°	576.4	577.5	580.8	580.8	579.7
7.5°	573.0	574.1	576.4	578.6	577.5
10°	568.6	569.7	571.9	574.1	574.1
12.5°	560.8	561.9	566.3	567.5	567.5
15°	553.0	555.2	558.6	560.8	561.9
17.5°	543.0	545.2	549.7	554.1	554.1
20°	533.0	535.2	540.8	545.2	546.3
22.5°	520.7	524.1	529.6	535.2	537.4
25°	508.5	511.8	517.4	524.1	526.3
27.5°	494.0	497.4	505.2	512.9	514.1
30°	479.6	482.9	492.9	499.6	502.9
32.5°	461.8	466.2	476.2	486.2	489.6
35°	445.1	449.5	460.6	470.7	475.1
37.5°	427.3	431.7	444.0	456.2	461.8
40°	407.2	412.8	427.3	440.6	448.4
42.5°	388.3	393.9	408.3	426.2	433.9
45°	367.2	372.7	390.5	410.6	420.6
47.5°	344.9	351.6	372.7	397.2	407.2
50°	322.7	330.5	353.8	381.6	392.8
52.5°	299.3	309.3	336.0	366.1	379.4
55°	274.8	287.1	318.2	350.5	363.8
57.5°	251.5	262.6	299.3	333.8	348.3
60°	225.9	240.3	281.5	317.1	332.7
62.5°	201.4	217.0	262.6	300.4	317.1
65°	180.3	195.8	242.6	282.6	300.4
67.5°	152.4	173.6	225.9	263.7	281.5
70°	124.6	153.5	204.7	243.7	260.4
72.5°	103.5	131.3	183.6	222.5	238.1
75°	79.0	110.2	161.3	194.7	204.7
77.5°	59.0	91.2	138.0	154.7	155.8
80°	43.4	70.1	104.6	110.2	114.6
82.5°	30.0	49.0	67.9	74.5	76.8
85°	18.9	28.9	38.9	42.3	42.3
87.5°	10.0	11.1	13.4	13.4	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)