

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: P294831

Luminaire Tested: **22CZ2-24HE-HRP-UNV-L930-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: P294831
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-L930-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
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: 1605.0 lumens
Efficiency: N/A
Efficacy: 83.6 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

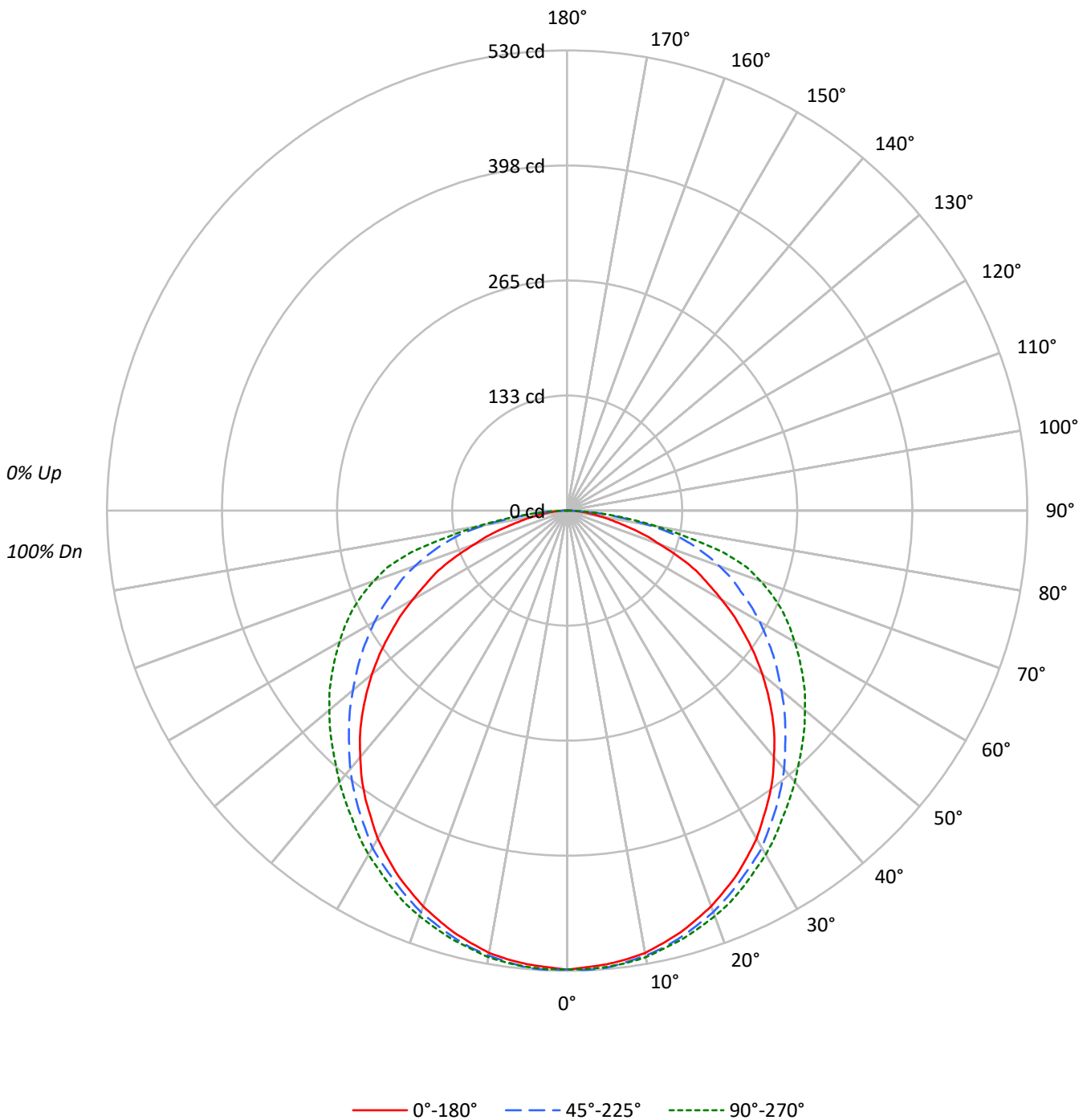
Input Watts (W): 19.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P294831

CATALOG NUMBER: 22CZ2-24HE-HRP-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P294831

CATALOG NUMBER: 22CZ2-24HE-HRP-UNV-L930-CD1-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	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	101	96	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73		80	75	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51		62	56	51		60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27		39	32	27		38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1422	1422	1422
5°	1417	1428	1425
10°	1414	1422	1427
15°	1402	1416	1424
20°	1389	1409	1424
25°	1374	1398	1422
30°	1356	1394	1422
35°	1330	1377	1420
40°	1302	1366	1433
45°	1271	1353	1456
50°	1229	1348	1496
55°	1173	1359	1553
60°	1106	1379	1629
65°	1044	1405	1741
70°	892	1466	1864
75°	748	1526	1937
80°	612	1475	1616
85°	531	1093	1189



TEST NUMBER: P294831

CATALOG NUMBER: 22CZ2-24HE-HRP-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.1	3.1
10°-20°	143.3	8.9
20°-30°	217.1	13.5
30°-40°	262.2	16.3
40°-50°	275.5	17.2
50°-60°	259.2	16.2
60°-70°	216.1	13.5
70°-80°	143.2	8.9
80°-90°	38.2	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°	410.5	25.6
0°-40°	672.7	41.9
0°-60°	1207.5	75.2
0°-90°	1605.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1605.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	528	528	528	528	528	
5°	524	526	528	528	528	50
15°	503	505	508	510	511	142
25°	463	466	471	477	479	213
35°	405	409	419	428	432	253
45°	334	339	355	374	383	257
55°	250	261	290	319	331	224
65°	164	178	221	257	273	160
75°	72	100	147	177	186	78
85°	17	26	35	38	38	20
90°	0	0	0	0	0	



TEST NUMBER: P294831

CATALOG NUMBER: 22CZ2-24HE-HRP-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	528.5	528.5	528.5	528.5	528.5
2.5°	526.5	527.5	529.5	529.5	528.5
5°	524.5	525.5	528.5	528.5	527.5
7.5°	521.4	522.4	524.5	526.5	525.5
10°	517.4	518.4	520.4	522.4	522.4
12.5°	510.3	511.3	515.4	516.4	516.4
15°	503.2	505.2	508.3	510.3	511.3
17.5°	494.1	496.1	500.2	504.2	504.2
20°	485.0	487.0	492.1	496.1	497.1
22.5°	473.8	476.9	481.9	487.0	489.0
25°	462.7	465.7	470.8	476.9	478.9
27.5°	449.5	452.6	459.7	466.8	467.8
30°	436.4	439.4	448.5	454.6	457.6
32.5°	420.2	424.2	433.3	442.5	445.5
35°	405.0	409.0	419.2	428.3	432.3
37.5°	388.8	392.8	404.0	415.1	420.2
40°	370.6	375.6	388.8	400.9	408.0
42.5°	353.4	358.4	371.6	387.8	394.9
45°	334.1	339.2	355.4	373.6	382.7
47.5°	313.9	319.9	339.2	361.5	370.6
50°	293.6	300.7	322.0	347.3	357.4
52.5°	272.4	281.5	305.8	333.1	345.3
55°	250.1	261.2	289.6	318.9	331.1
57.5°	228.8	238.9	272.4	303.7	316.9
60°	205.5	218.7	256.2	288.6	302.7
62.5°	183.3	197.4	238.9	273.4	288.6
65°	164.0	178.2	220.7	257.2	273.4
67.5°	138.7	157.9	205.5	240.0	256.2
70°	113.4	139.7	186.3	221.7	236.9
72.5°	94.2	119.5	167.1	202.5	216.7
75°	71.9	100.2	146.8	177.2	186.3
77.5°	53.7	83.0	125.5	140.7	141.7
80°	39.5	63.8	95.2	100.2	104.3
82.5°	27.3	44.5	61.8	67.8	69.9
85°	17.2	26.3	35.4	38.5	38.5
87.5°	9.1	10.1	12.1	12.1	12.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)