

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: P294835

Luminaire Tested: **22CZ2-24-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: P294835
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: 22CZ2-24-HRP-UNV-L930-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (56) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

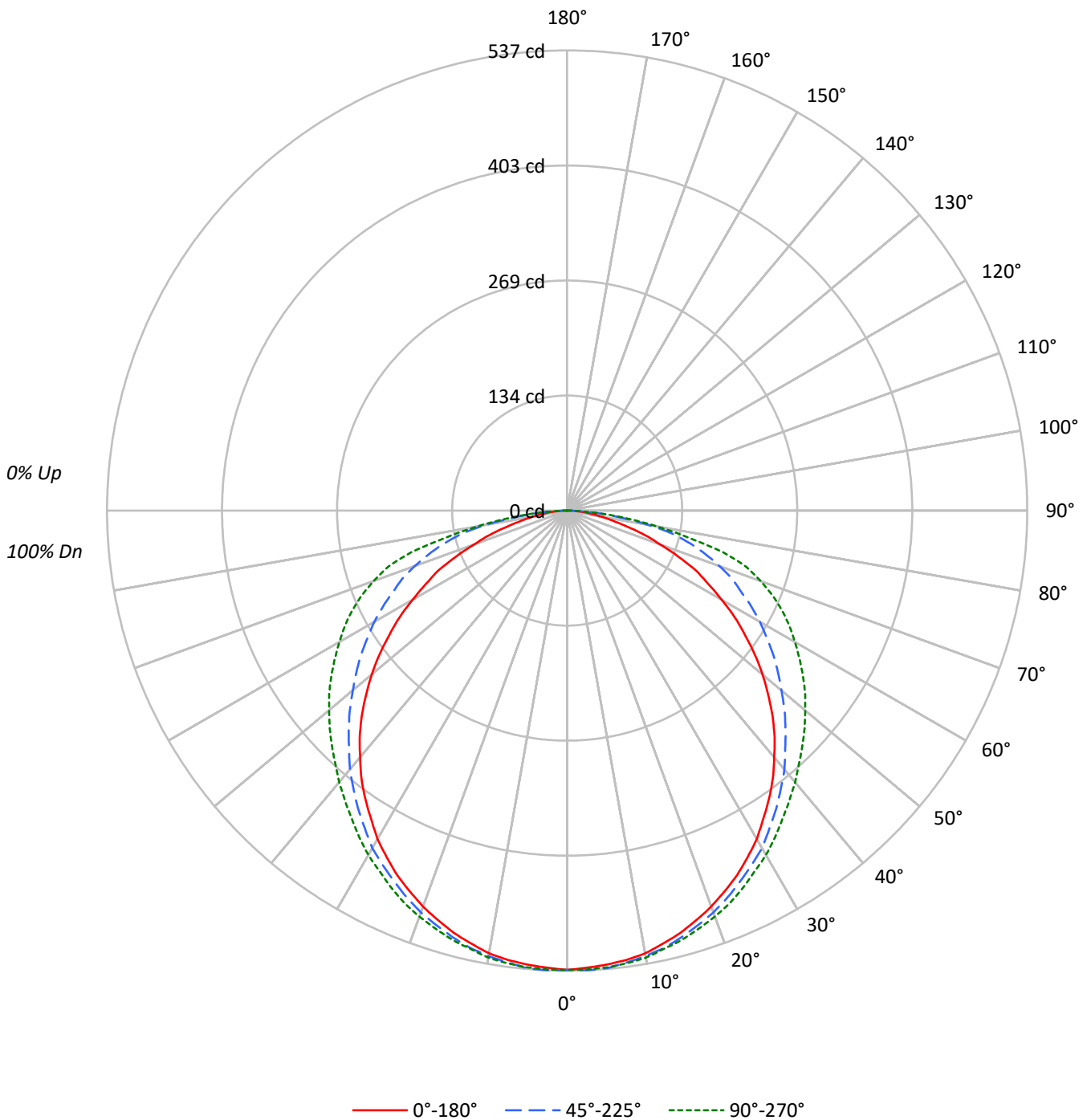
Lumens per Lamp: N/A
Luminaire Lumens: 1627.7 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.9
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	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°	1442	1442	1442
5°	1437	1448	1445
10°	1434	1442	1448
15°	1422	1436	1444
20°	1408	1429	1444
25°	1393	1418	1442
30°	1375	1413	1442
35°	1349	1396	1441
40°	1320	1385	1454
45°	1290	1372	1477
50°	1247	1367	1518
55°	1190	1378	1575
60°	1122	1398	1652
65°	1059	1425	1765
70°	905	1486	1891
75°	758	1548	1964
80°	620	1495	1640
85°	540	1108	1204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	3.1
10°-20°	145.3	8.9
20°-30°	220.2	13.5
30°-40°	265.9	16.3
40°-50°	279.4	17.2
50°-60°	262.9	16.2
60°-70°	219.2	13.5
70°-80°	145.2	8.9
80°-90°	38.7	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°	416.3	25.6
0°-40°	682.3	41.9
0°-60°	1224.6	75.2
0°-90°	1627.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1627.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	536	536	536	536	536	
5°	532	533	536	536	535	51
15°	510	512	516	518	518	144
25°	469	472	478	484	486	216
35°	411	415	425	434	438	257
45°	339	344	360	379	388	261
55°	254	265	294	323	336	227
65°	166	181	224	261	277	162
75°	73	102	149	180	189	79
85°	18	27	36	39	39	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	536.0	536.0	536.0	536.0	536.0
2.5°	533.9	535.0	537.0	537.0	536.0
5°	531.9	532.9	536.0	536.0	535.0
7.5°	528.8	529.8	531.9	533.9	532.9
10°	524.7	525.7	527.8	529.8	529.8
12.5°	517.5	518.5	522.7	523.7	523.7
15°	510.3	512.4	515.5	517.5	518.5
17.5°	501.1	503.1	507.3	511.4	511.4
20°	491.8	493.9	499.0	503.1	504.2
22.5°	480.6	483.6	488.8	493.9	496.0
25°	469.3	472.3	477.5	483.6	485.7
27.5°	455.9	459.0	466.2	473.4	474.4
30°	442.6	445.6	454.9	461.0	464.1
32.5°	426.1	430.2	439.5	448.7	451.8
35°	410.7	414.8	425.1	434.3	438.5
37.5°	394.3	398.4	409.7	421.0	426.1
40°	375.8	381.0	394.3	406.6	413.8
42.5°	358.4	363.5	376.8	393.3	400.5
45°	338.9	344.0	360.4	378.9	388.1
47.5°	318.3	324.5	344.0	366.6	375.8
50°	297.8	305.0	326.5	352.2	362.5
52.5°	276.2	285.5	310.1	337.8	350.1
55°	253.6	264.9	293.7	323.4	335.8
57.5°	232.1	242.3	276.2	308.0	321.4
60°	208.4	221.8	259.8	292.6	307.0
62.5°	185.9	200.2	242.3	277.2	292.6
65°	166.3	180.7	223.8	260.8	277.2
67.5°	140.7	160.2	208.4	243.4	259.8
70°	115.0	141.7	188.9	224.9	240.3
72.5°	95.5	121.2	169.4	205.4	219.7
75°	72.9	101.7	148.9	179.7	188.9
77.5°	54.4	84.2	127.3	142.7	143.8
80°	40.0	64.7	96.5	101.7	105.8
82.5°	27.7	45.2	62.6	68.8	70.9
85°	17.5	26.7	35.9	39.0	39.0
87.5°	9.2	10.3	12.3	12.3	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)