

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: P274749

Luminaire Tested: **22CZ2-29HE-RDP-UNV-L940-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: P274749
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29HE-RDP-UNV-L940-CD1-U
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
Light Source: (196) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1682.0 lumens
Efficiency: N/A
Efficacy: 75.8 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

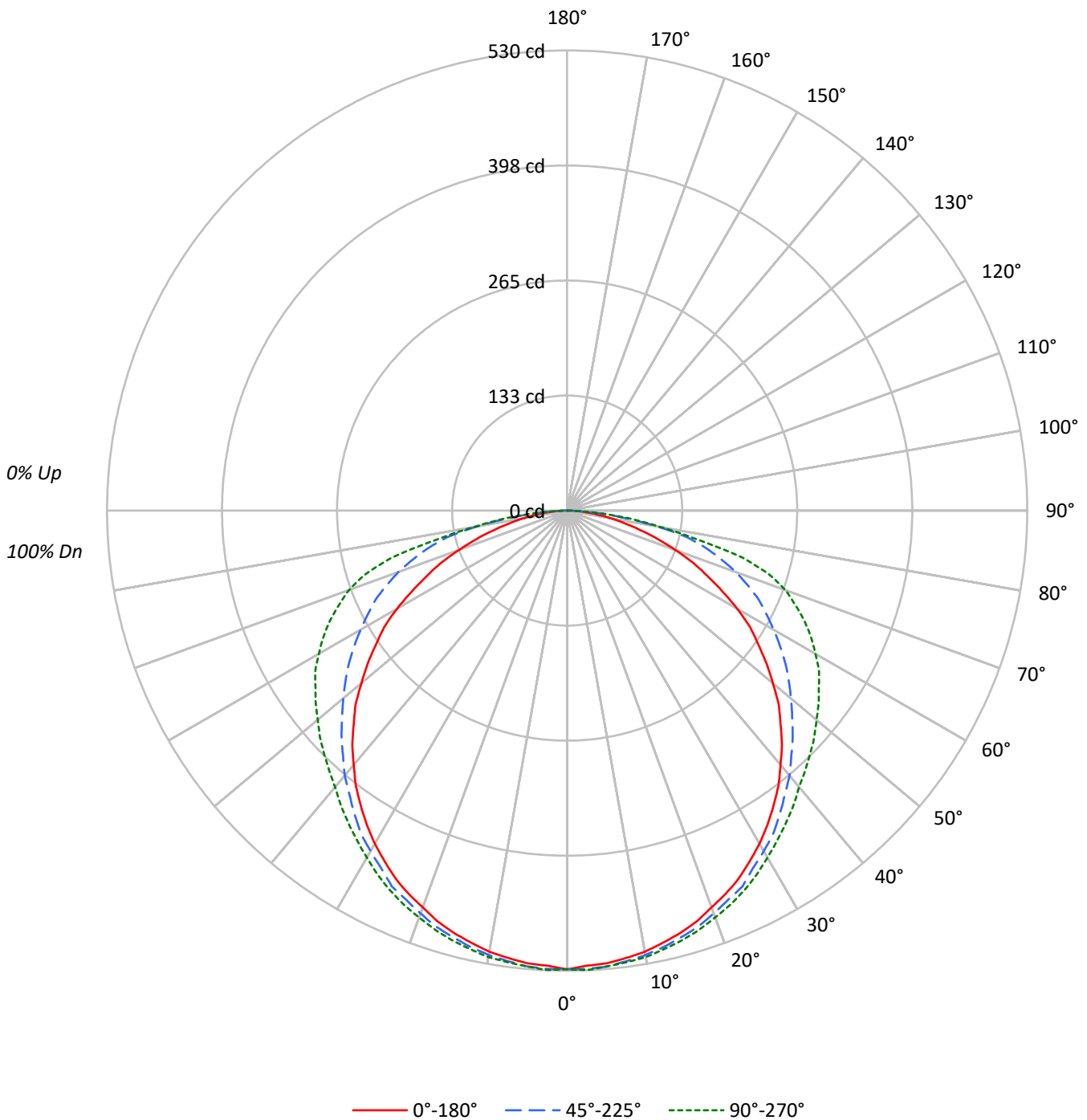
Input Watts (W): 22.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1422	1422	1422
5°	1414	1424	1424
10°	1410	1420	1427
15°	1403	1417	1427
20°	1393	1414	1428
25°	1389	1418	1433
30°	1377	1407	1434
35°	1362	1402	1443
40°	1343	1400	1460
45°	1323	1399	1507
50°	1295	1409	1569
55°	1260	1440	1660
60°	1218	1478	1778
65°	1135	1552	1922
70°	1042	1626	2103
75°	914	1711	2174
80°	786	1630	1706
85°	689	1186	1300



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.0	3.0
10°-20°	143.5	8.5
20°-30°	218.9	13.0
30°-40°	267.3	15.9
40°-50°	285.8	17.0
50°-60°	275.9	16.4
60°-70°	237.5	14.1
70°-80°	160.7	9.6
80°-90°	42.4	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°	412.4	24.5
0°-40°	679.7	40.4
0°-60°	1241.4	73.8
0°-90°	1682.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1682.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	528	528	528	528	528	
5°	523	525	527	527	527	50
15°	504	505	508	511	512	142
25°	468	470	478	480	483	215
35°	414	418	427	436	439	259
45°	348	354	368	386	396	268
55°	268	277	307	338	354	241
65°	178	196	244	282	302	177
75°	88	116	165	198	209	94
85°	22	31	38	40	42	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	528.3	528.3	528.3	528.3	528.3
2.5°	524.6	525.9	528.3	528.3	529.6
5°	523.4	524.6	527.1	527.1	527.1
7.5°	519.7	520.9	523.4	524.6	524.6
10°	516.0	517.2	519.7	520.9	522.2
12.5°	509.8	511.0	514.7	517.2	517.2
15°	503.6	504.8	508.5	511.0	512.3
17.5°	496.2	498.6	502.4	504.8	506.1
20°	486.3	488.8	493.7	497.4	498.6
22.5°	477.6	480.1	485.0	488.8	491.2
25°	467.7	470.2	477.6	480.1	482.6
27.5°	455.3	457.8	464.0	469.0	472.7
30°	443.0	445.4	452.9	459.1	461.5
32.5°	429.4	433.1	441.7	446.7	450.4
35°	414.5	418.2	426.9	435.5	439.3
37.5°	399.7	403.4	412.0	423.2	428.1
40°	382.3	387.3	398.4	413.3	415.7
42.5°	366.3	372.4	382.3	399.7	405.8
45°	347.7	353.9	367.5	386.1	395.9
47.5°	330.4	336.6	351.4	373.7	386.1
50°	309.3	318.0	336.6	362.5	374.9
52.5°	289.5	297.0	321.7	350.2	365.0
55°	268.5	277.2	306.9	337.8	353.9
57.5°	249.9	257.4	290.8	325.4	344.0
60°	226.4	236.3	274.7	311.8	330.4
62.5°	201.7	216.5	258.6	297.0	316.8
65°	178.2	195.5	243.8	282.1	301.9
67.5°	157.1	175.7	225.2	266.0	284.6
70°	132.4	155.9	206.6	246.2	267.3
72.5°	110.1	136.1	185.6	225.2	243.8
75°	87.9	116.3	164.6	198.0	209.1
77.5°	68.1	95.3	141.1	151.0	152.2
80°	50.7	75.5	105.2	106.4	110.1
82.5°	34.6	53.2	68.1	74.2	75.5
85°	22.3	30.9	38.4	39.6	42.1
87.5°	9.9	11.1	13.6	12.4	12.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)