

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: P274747

Luminaire Tested: **22CZ2-29HE-RDP-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: P274747
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-L930-CD1-U
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
Light Source: (196) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1624.7 lumens
Efficiency: N/A
Efficacy: 73.2 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

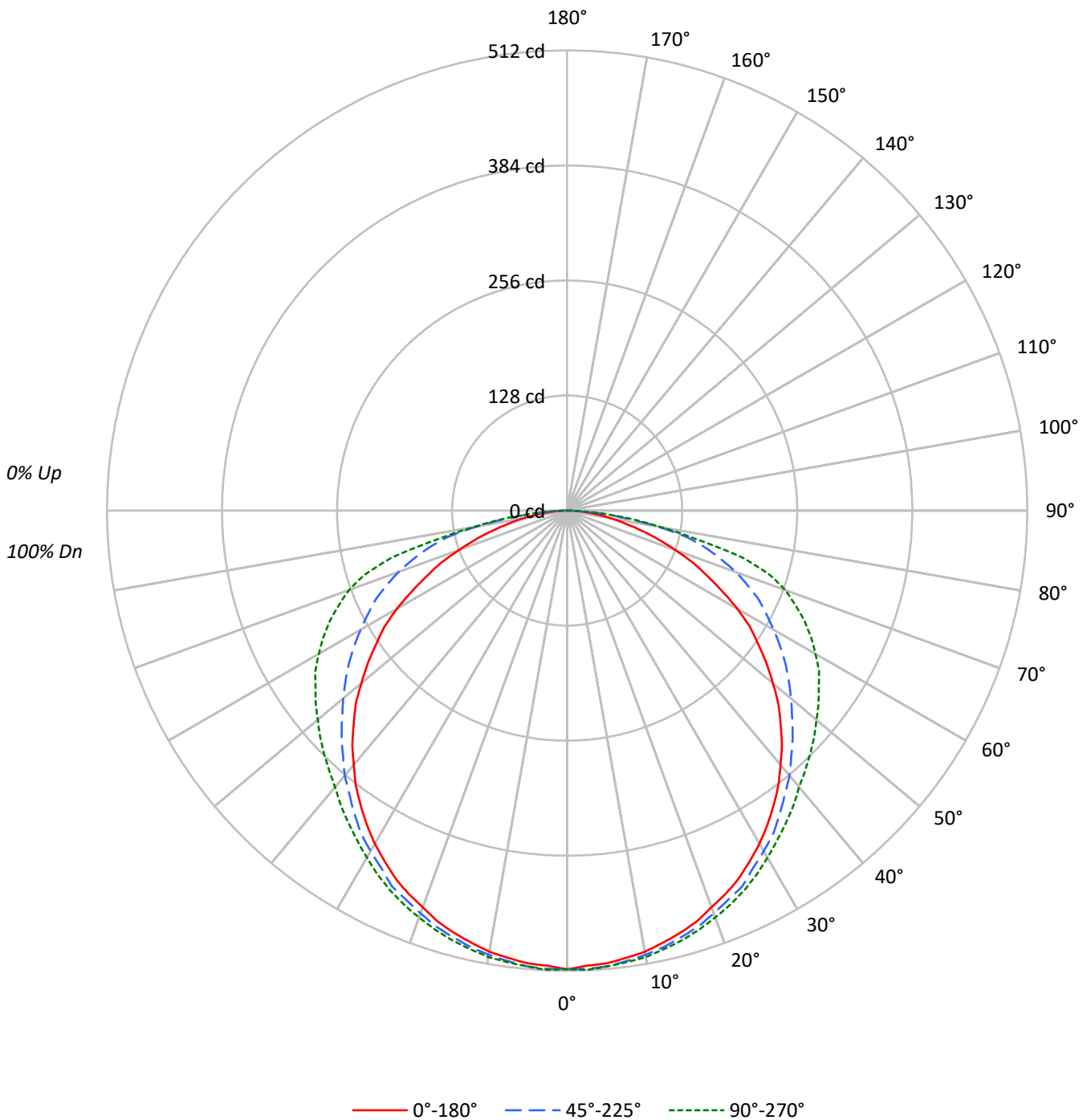
Input Watts (W): 22.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1373	1373	1373
5°	1366	1375	1375
10°	1362	1372	1378
15°	1355	1368	1378
20°	1345	1366	1379
25°	1341	1370	1384
30°	1330	1359	1385
35°	1315	1354	1394
40°	1297	1352	1411
45°	1278	1351	1456
50°	1251	1361	1516
55°	1217	1391	1604
60°	1177	1428	1717
65°	1096	1500	1857
70°	1006	1570	2031
75°	883	1653	2100
80°	759	1574	1649
85°	664	1145	1254



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.3	3.0
10°-20°	138.6	8.5
20°-30°	211.5	13.0
30°-40°	258.2	15.9
40°-50°	276.1	17.0
50°-60°	266.5	16.4
60°-70°	229.4	14.1
70°-80°	155.2	9.6
80°-90°	41.0	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°	398.4	24.5
0°-40°	656.6	40.4
0°-60°	1199.1	73.8
0°-90°	1624.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1624.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	510	510	510	510	510	
5°	506	507	509	509	509	48
15°	486	488	491	494	495	137
25°	452	454	461	464	466	208
35°	400	404	412	421	424	251
45°	336	342	355	373	382	259
55°	259	268	296	326	342	232
65°	172	189	236	272	292	171
75°	85	112	159	191	202	91
85°	22	30	37	38	41	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	510.3	510.3	510.3	510.3	510.3
2.5°	506.8	508.0	510.3	510.3	511.5
5°	505.6	506.8	509.2	509.2	509.2
7.5°	502.0	503.2	505.6	506.8	506.8
10°	498.4	499.6	502.0	503.2	504.4
12.5°	492.4	493.6	497.2	499.6	499.6
15°	486.4	487.6	491.2	493.6	494.8
17.5°	479.3	481.7	485.2	487.6	488.8
20°	469.7	472.1	476.9	480.5	481.7
22.5°	461.3	463.7	468.5	472.1	474.5
25°	451.8	454.2	461.3	463.7	466.1
27.5°	439.8	442.2	448.2	453.0	456.6
30°	427.9	430.3	437.4	443.4	445.8
32.5°	414.7	418.3	426.7	431.5	435.0
35°	400.4	404.0	412.3	420.7	424.3
37.5°	386.0	389.6	398.0	408.8	413.5
40°	369.3	374.1	384.9	399.2	401.6
42.5°	353.8	359.8	369.3	386.0	392.0
45°	335.8	341.8	355.0	372.9	382.5
47.5°	319.1	325.1	339.4	360.9	372.9
50°	298.8	307.2	325.1	350.2	362.1
52.5°	279.7	286.8	310.7	338.2	352.6
55°	259.4	267.7	296.4	326.3	341.8
57.5°	241.4	248.6	280.9	314.3	332.3
60°	218.7	228.3	265.3	301.2	319.1
62.5°	194.8	209.2	249.8	286.8	306.0
65°	172.1	188.8	235.5	272.5	291.6
67.5°	151.8	169.7	217.5	257.0	274.9
70°	127.9	150.6	199.6	237.8	258.2
72.5°	106.4	131.5	179.3	217.5	235.5
75°	84.9	112.3	159.0	191.2	202.0
77.5°	65.7	92.0	136.3	145.8	147.0
80°	49.0	72.9	101.6	102.8	106.4
82.5°	33.5	51.4	65.7	71.7	72.9
85°	21.5	29.9	37.1	38.2	40.6
87.5°	9.6	10.8	13.1	12.0	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)