

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: P274748

Luminaire Tested: **22CZ2-29HE-RDP-UNV-L935-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: P274748  
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-L935-CD1-U  
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI  
Light Source: (196) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1665.0 lumens  
Efficiency: N/A  
Efficacy: 75.0 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

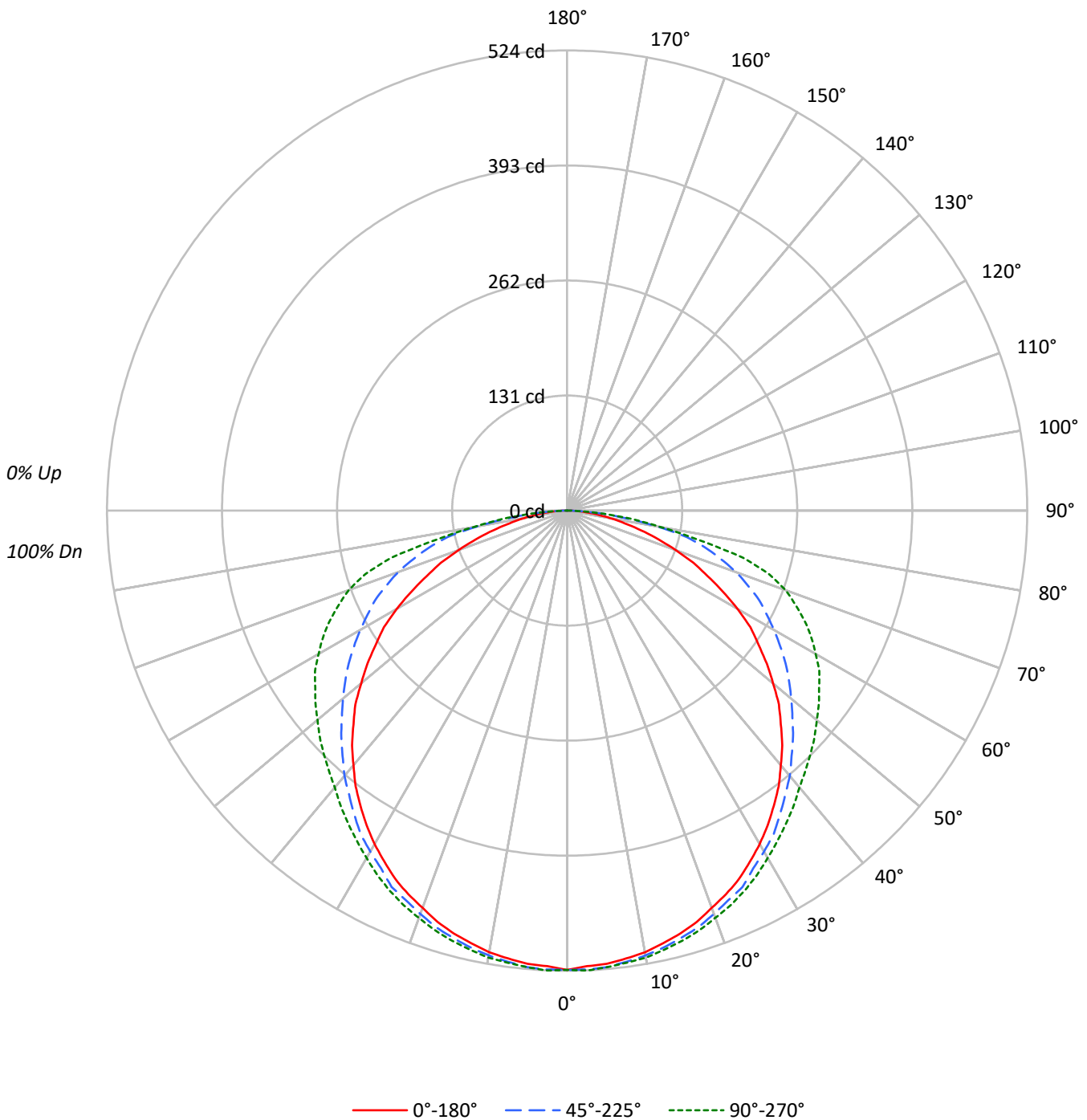
Input Watts (W): 22.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1407	1407	1407
5°	1400	1410	1410
10°	1396	1406	1412
15°	1389	1402	1413
20°	1379	1399	1414
25°	1375	1404	1418
30°	1363	1393	1420
35°	1348	1388	1428
40°	1330	1385	1446
45°	1310	1384	1491
50°	1282	1395	1554
55°	1247	1425	1643
60°	1206	1463	1760
65°	1123	1536	1903
70°	1031	1609	2082
75°	905	1694	2152
80°	778	1613	1689
85°	679	1173	1284



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.5	3.0
10°-20°	142.0	8.5
20°-30°	216.7	13.0
30°-40°	264.6	15.9
40°-50°	282.9	17.0
50°-60°	273.1	16.4
60°-70°	235.1	14.1
70°-80°	159.0	9.6
80°-90°	42.0	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°	408.2	24.5
0°-40°	672.9	40.4
0°-60°	1228.9	73.8
0°-90°	1665.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1665.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	523	523	523	523	523	
5°	518	519	522	522	522	49
15°	498	500	503	506	507	141
25°	463	465	473	475	478	213
35°	410	414	423	431	435	257
45°	344	350	364	382	392	266
55°	266	274	304	334	350	238
65°	176	194	241	279	299	175
75°	87	115	163	196	207	93
85°	22	31	38	39	42	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	523.0	523.0	523.0	523.0	523.0
2.5°	519.3	520.6	523.0	523.0	524.2
5°	518.1	519.3	521.8	521.8	521.8
7.5°	514.4	515.7	518.1	519.3	519.3
10°	510.8	512.0	514.4	515.7	516.9
12.5°	504.6	505.9	509.5	512.0	512.0
15°	498.5	499.7	503.4	505.9	507.1
17.5°	491.2	493.6	497.3	499.7	501.0
20°	481.4	483.8	488.7	492.4	493.6
22.5°	472.8	475.2	480.1	483.8	486.3
25°	463.0	465.4	472.8	475.2	477.7
27.5°	450.7	453.2	459.3	464.2	467.9
30°	438.5	440.9	448.3	454.4	456.9
32.5°	425.0	428.7	437.3	442.2	445.8
35°	410.3	414.0	422.6	431.1	434.8
37.5°	395.6	399.3	407.9	418.9	423.8
40°	378.5	383.4	394.4	409.1	411.5
42.5°	362.6	368.7	378.5	395.6	401.7
45°	344.2	350.3	363.8	382.1	391.9
47.5°	327.0	333.2	347.9	369.9	382.1
50°	306.2	314.8	333.2	358.9	371.1
52.5°	286.6	294.0	318.5	346.6	361.3
55°	265.8	274.4	303.8	334.4	350.3
57.5°	247.4	254.8	287.8	322.1	340.5
60°	224.1	233.9	271.9	308.7	327.0
62.5°	199.6	214.3	256.0	294.0	313.6
65°	176.4	193.5	241.3	279.3	298.9
67.5°	155.6	173.9	222.9	263.3	281.7
70°	131.1	154.3	204.5	243.7	264.6
72.5°	109.0	134.7	183.7	222.9	241.3
75°	87.0	115.1	162.9	196.0	207.0
77.5°	67.4	94.3	139.6	149.4	150.7
80°	50.2	74.7	104.1	105.3	109.0
82.5°	34.3	52.7	67.4	73.5	74.7
85°	22.0	30.6	38.0	39.2	41.6
87.5°	9.8	11.0	13.5	12.2	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)