

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: P271982

Luminaire Tested: **22CZ2-29HE-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: P271982  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-29HE-UNV-L935-CD1-U  
Description: 2'X2' TROFFER LED MODULE,RIBBED LENS, 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: 2488.0 lumens  
Efficiency: N/A  
Efficacy: 112.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

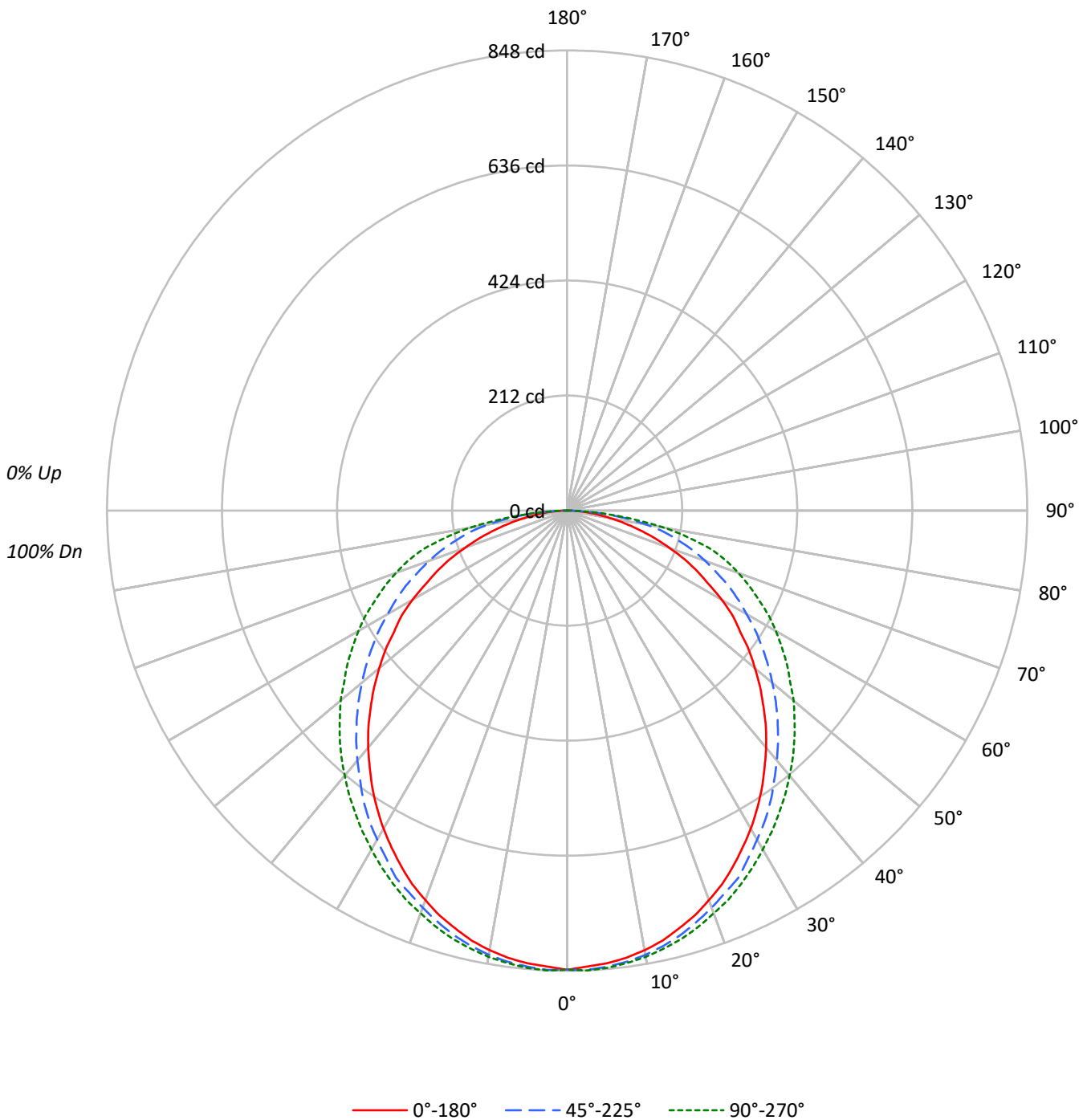
Input Watts (W): 22.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2277	2277	2277
5°	2262	2279	2285
10°	2248	2272	2281
15°	2220	2254	2275
20°	2188	2230	2261
25°	2148	2217	2254
30°	2104	2176	2241
35°	2055	2148	2236
40°	2004	2112	2240
45°	1947	2087	2255
50°	1891	2066	2281
55°	1826	2056	2320
60°	1772	2056	2392
65°	1684	2089	2479
70°	1570	2129	2639
75°	1438	2202	2851
80°	1252	2295	2808
85°	1096	2041	2229



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.0	3.2
10°-20°	227.9	9.2
20°-30°	342.1	13.7
30°-40°	408.8	16.4
40°-50°	425.1	17.1
50°-60°	394.0	15.8
60°-70°	323.1	13.0
70°-80°	218.4	8.8
80°-90°	68.6	2.8
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°	650.0	26.1
0°-40°	1058.7	42.6
0°-60°	1877.8	75.5
0°-90°	2488.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2488.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	846	846	846	846	846	
5°	837	839	844	845	846	79
15°	797	801	809	814	817	225
25°	724	730	747	755	759	333
35°	626	634	654	673	681	391
45°	512	522	548	580	592	395
55°	389	402	438	478	495	350
65°	264	279	328	371	389	261
75°	138	162	212	255	274	147
85°	36	49	66	74	72	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	846.0	846.0	846.0	846.0	846.0
2.5°	841.1	843.5	847.2	848.4	848.4
5°	837.4	838.6	843.5	844.7	846.0
7.5°	831.3	833.7	838.6	839.8	841.1
10°	822.7	825.2	831.3	833.7	834.9
12.5°	811.7	814.1	821.5	825.2	826.4
15°	797.0	800.7	809.2	814.1	816.6
17.5°	782.3	786.0	794.5	801.9	804.3
20°	763.9	772.5	778.6	788.4	789.6
22.5°	745.6	750.5	761.5	771.3	776.2
25°	723.5	729.7	746.8	755.4	759.0
27.5°	700.3	708.8	722.3	735.8	740.7
30°	677.0	683.1	700.3	716.2	721.1
32.5°	651.3	659.9	678.2	694.2	701.5
35°	625.6	634.2	653.8	673.3	680.7
37.5°	597.4	607.2	626.8	650.1	659.9
40°	570.5	577.9	601.1	629.3	637.8
42.5°	542.3	550.9	575.4	606.0	615.8
45°	511.7	521.5	548.5	580.3	592.5
47.5°	482.4	492.2	521.5	553.4	568.1
50°	451.8	464.0	493.4	530.1	544.8
52.5°	422.4	433.4	466.4	504.4	517.9
55°	389.3	401.6	438.3	477.5	494.6
57.5°	362.4	371.0	411.4	451.8	468.9
60°	329.3	340.3	382.0	424.8	444.4
62.5°	293.8	312.2	355.0	399.1	418.7
65°	264.4	279.1	328.1	371.0	389.3
67.5°	233.8	249.7	297.5	342.8	363.6
70°	199.6	220.4	270.6	315.9	335.4
72.5°	168.9	191.0	242.4	286.5	307.3
75°	138.3	161.6	211.8	254.6	274.2
77.5°	109.0	134.7	183.6	216.7	228.9
80°	80.8	105.3	148.1	171.4	181.2
82.5°	56.3	77.1	109.0	121.2	123.7
85°	35.5	49.0	66.1	73.5	72.2
87.5°	15.9	19.6	24.5	26.9	25.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)