

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: P272028

Luminaire Tested: **22CZ2-29HE-S-UNV-L950-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: P272028  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-29HE-S-UNV-L950-CD1-U  
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS, 90CRI  
Light Source: (196) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

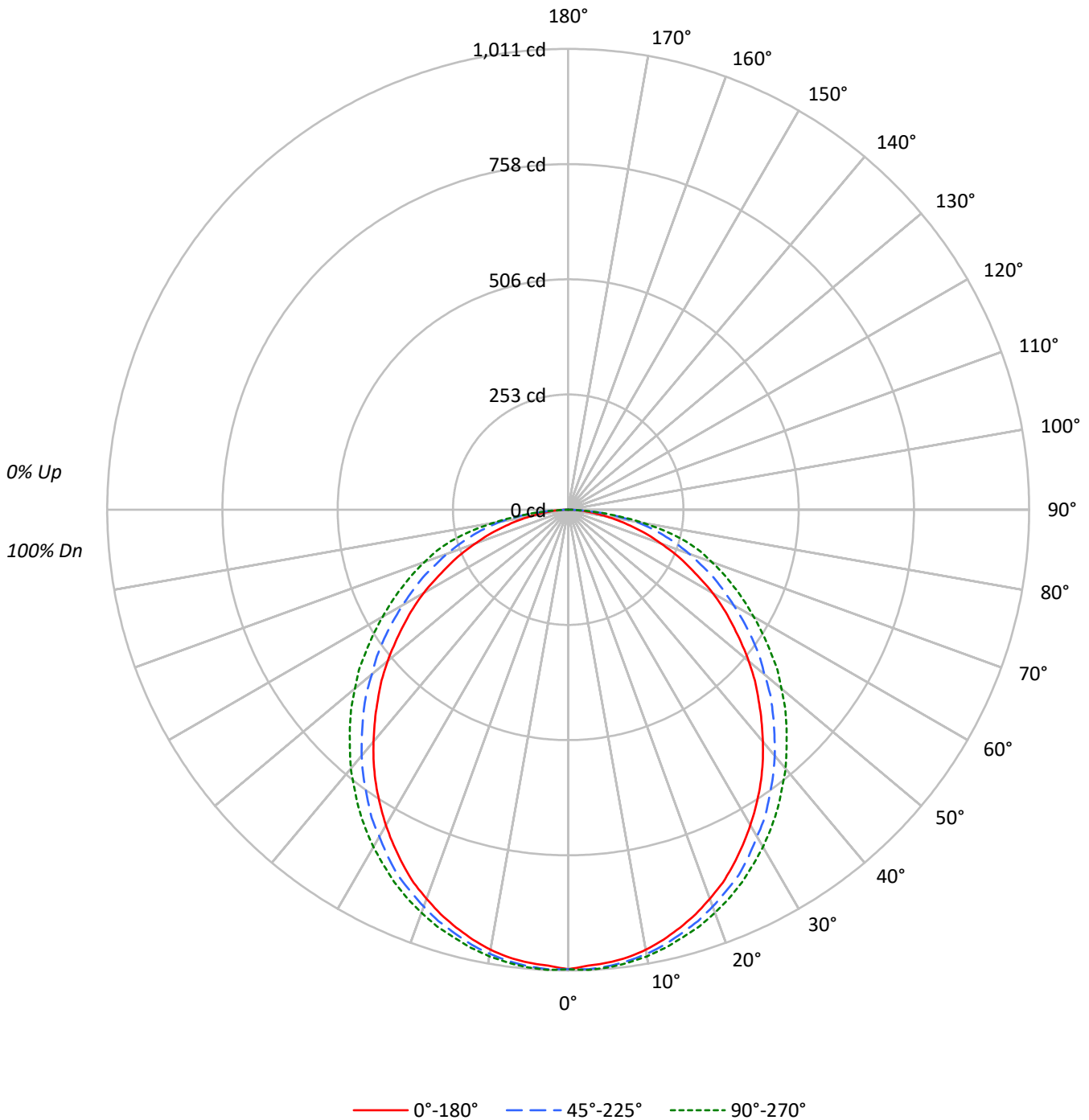
Lumens per Lamp: N/A  
Luminaire Lumens: 2813.0 lumens  
Efficiency: N/A  
Efficacy: 126.7 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2713	2713	2713
5°	2695	2716	2723
10°	2679	2704	2719
15°	2644	2680	2706
20°	2601	2653	2695
25°	2549	2627	2677
30°	2484	2573	2655
35°	2415	2527	2630
40°	2333	2476	2605
45°	2248	2417	2577
50°	2165	2352	2555
55°	2063	2309	2537
60°	1971	2253	2529
65°	1838	2239	2557
70°	1693	2220	2633
75°	1528	2252	2770
80°	1322	2318	2603
85°	1093	1945	1945



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.3	3.4
10°-20°	271.3	9.6
20°-30°	405.9	14.4
30°-40°	480.7	17.1
40°-50°	489.9	17.4
50°-60°	439.1	15.6
60°-70°	343.7	12.2
70°-80°	221.7	7.9
80°-90°	65.5	2.3
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°	772.5	27.5
0°-40°	1253.2	44.5
0°-60°	2182.1	77.6
0°-90°	2813.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2813.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1008	1008	1008	1008	1008	
5°	998	1000	1005	1007	1008	95
15°	949	954	962	970	971	268
25°	858	866	885	896	902	395
35°	735	744	769	793	801	459
45°	591	604	635	668	677	456
55°	440	454	492	526	541	394
65°	289	306	352	386	402	287
75°	147	169	217	253	266	158
85°	35	49	63	63	63	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1008.0	1008.0	1008.0	1008.0	1008.0
2.5°	1001.4	1004.0	1009.3	1010.6	1010.6
5°	997.5	1000.1	1005.4	1006.7	1008.0
7.5°	990.9	992.2	998.8	1001.4	1002.7
10°	980.4	983.0	989.6	993.5	994.9
12.5°	966.0	969.9	977.8	983.0	984.4
15°	948.9	954.2	962.0	969.9	971.2
17.5°	930.5	935.8	946.3	955.5	958.1
20°	908.2	914.8	926.6	937.1	941.0
22.5°	885.9	891.2	905.6	918.7	922.7
25°	858.4	866.2	884.6	896.4	901.7
27.5°	829.5	838.7	857.1	872.8	878.0
30°	799.3	808.5	828.2	847.9	854.4
32.5°	767.8	778.3	801.9	821.6	828.2
35°	735.0	744.2	769.1	792.7	800.6
37.5°	700.9	708.7	737.6	762.6	770.4
40°	664.1	674.6	704.8	733.7	741.6
42.5°	627.4	639.2	669.4	700.9	708.7
45°	590.6	603.7	635.2	668.1	677.2
47.5°	555.2	565.7	601.1	632.6	645.7
50°	517.1	527.6	561.7	597.2	610.3
52.5°	477.7	492.2	528.9	563.1	578.8
55°	439.7	454.1	492.2	526.3	540.7
57.5°	404.2	416.1	455.4	490.9	505.3
60°	366.2	376.7	418.7	456.7	469.9
62.5°	325.5	341.2	384.6	420.0	435.7
65°	288.7	305.8	351.7	385.9	401.6
67.5°	254.6	270.4	315.0	351.7	368.8
70°	215.2	236.2	282.2	318.9	334.7
72.5°	183.7	202.1	249.4	286.1	303.2
75°	147.0	169.3	216.6	253.3	266.4
77.5°	116.8	139.1	183.7	212.6	219.2
80°	85.3	107.6	149.6	164.1	168.0
82.5°	57.7	78.7	107.6	111.6	112.9
85°	35.4	48.6	63.0	63.0	63.0
87.5°	17.1	19.7	22.3	21.0	21.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)