

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: P271953

Luminaire Tested: **14CZ2-39HE-S-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: P271953  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-39HE-S-UNV-L930-CD1-U  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 90CRI  
Light Source: (196) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

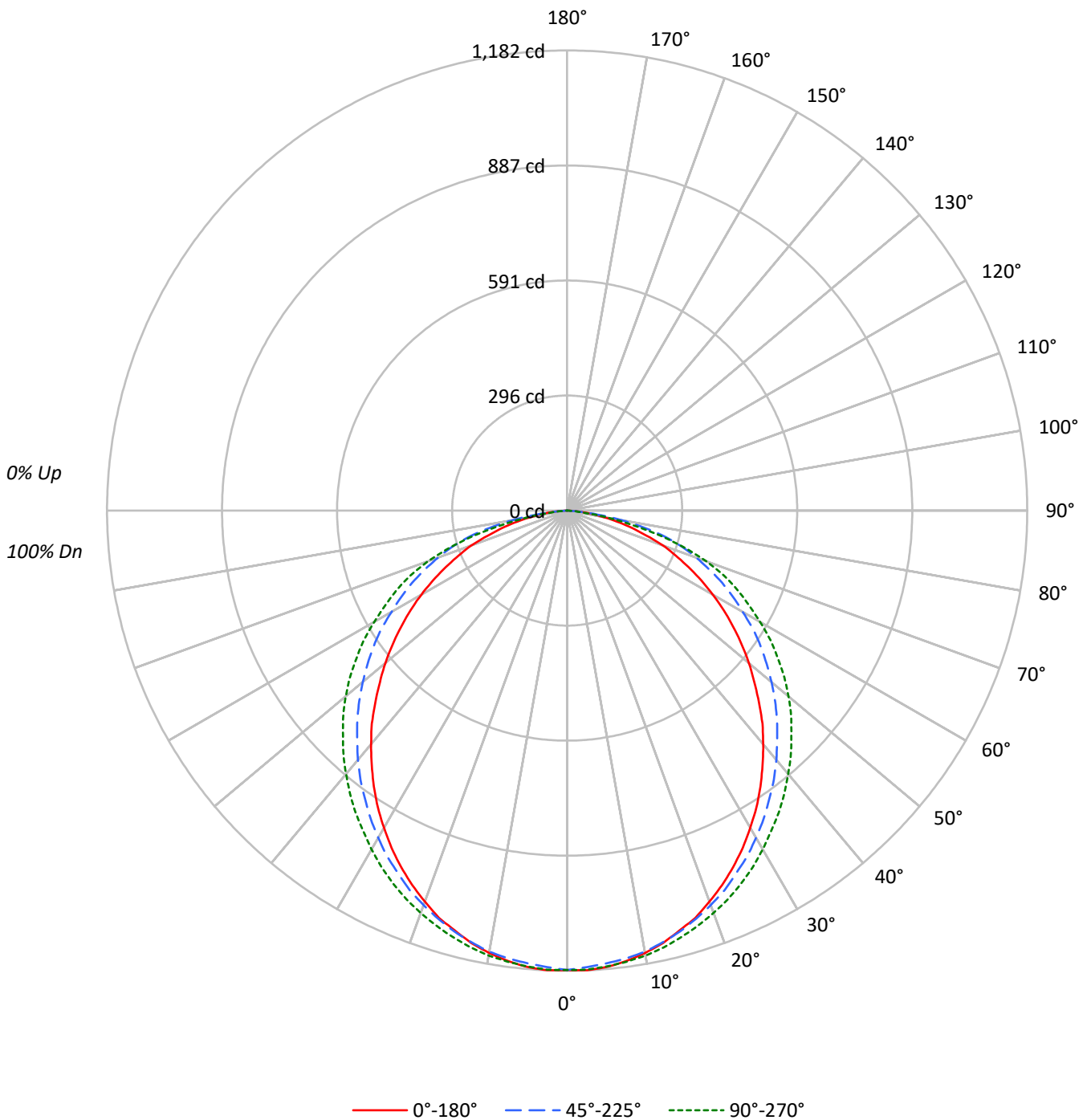
Lumens per Lamp: N/A  
Luminaire Lumens: 3305.9 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 29.3  
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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	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	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	3176	3176	3176
5°	3179	3152	3175
10°	3153	3144	3171
15°	3110	3119	3160
20°	3060	3088	3149
25°	2998	3051	3139
30°	2923	3015	3122
35°	2843	2972	3112
40°	2752	2936	3104
45°	2651	2901	3100
50°	2552	2868	3108
55°	2445	2845	3099
60°	2329	2805	3078
65°	2192	2797	3079
70°	2064	2773	2992
75°	1789	2709	2557
80°	1447	2185	1702
85°	960	760	506



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.4	3.4
10°-20°	317.1	9.6
20°-30°	475.7	14.4
30°-40°	567.4	17.2
40°-50°	586.6	17.7
50°-60°	535.6	16.2
60°-70°	421.5	12.7
70°-80°	245.3	7.4
80°-90°	45.2	1.4
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°	904.2	27.4
0°-40°	1471.7	44.5
0°-60°	2593.9	78.5
0°-90°	3305.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3305.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1180	1180	1180	1180	1180	
5°	1177	1174	1167	1177	1175	112
15°	1116	1118	1120	1134	1134	315
25°	1010	1015	1028	1052	1057	465
35°	865	877	905	939	947	541
45°	697	720	762	805	815	538
55°	521	549	606	651	661	466
65°	344	380	439	474	484	342
75°	172	213	261	256	246	183
85°	31	44	25	20	16	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1180.2	1180.2	1180.2	1180.2	1180.2
2.5°	1181.8	1178.5	1173.6	1181.8	1180.2
5°	1176.9	1173.6	1167.0	1176.9	1175.2
7.5°	1167.0	1163.8	1160.5	1170.3	1168.7
10°	1153.9	1152.3	1150.6	1162.1	1160.5
12.5°	1137.5	1137.5	1135.9	1149.0	1149.0
15°	1116.2	1117.9	1119.5	1134.3	1134.3
17.5°	1096.6	1094.9	1099.8	1116.2	1117.9
20°	1068.7	1072.0	1078.5	1098.2	1099.8
22.5°	1040.8	1044.1	1055.6	1075.2	1080.2
25°	1009.7	1014.6	1027.7	1052.3	1057.2
27.5°	976.9	983.5	1001.5	1027.7	1032.6
30°	940.8	950.7	970.3	999.9	1004.8
32.5°	904.8	914.6	939.2	968.7	975.3
35°	865.4	876.9	904.8	939.2	947.4
37.5°	824.5	839.2	872.0	906.4	916.3
40°	783.5	799.9	835.9	872.0	883.5
42.5°	742.5	758.9	798.2	839.2	850.7
45°	696.6	719.6	762.2	804.8	814.6
47.5°	652.4	676.9	724.5	767.1	780.2
50°	609.7	634.3	685.1	729.4	742.5
52.5°	565.5	591.7	645.8	691.7	703.2
55°	521.2	549.1	606.5	650.7	660.6
57.5°	477.0	506.5	565.5	608.1	619.6
60°	432.7	463.9	521.2	563.9	572.0
62.5°	388.5	421.2	480.3	518.0	526.2
65°	344.2	380.3	439.3	473.7	483.5
67.5°	301.6	337.7	395.0	427.8	436.0
70°	262.3	295.0	352.4	377.0	380.3
72.5°	213.1	254.1	309.8	322.9	314.7
75°	172.1	213.1	260.6	255.7	245.9
77.5°	131.1	172.1	203.2	186.9	173.7
80°	93.4	134.4	141.0	116.4	109.8
82.5°	60.6	93.4	78.7	60.6	49.2
85°	31.1	44.3	24.6	19.7	16.4
87.5°	9.8	6.6	3.3	3.3	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)