

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: P271955

Luminaire Tested: **14CZ2-39HE-S-UNV-L940-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: P271955  
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-L940-CD1-U  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 90CRI  
Light Source: (196) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

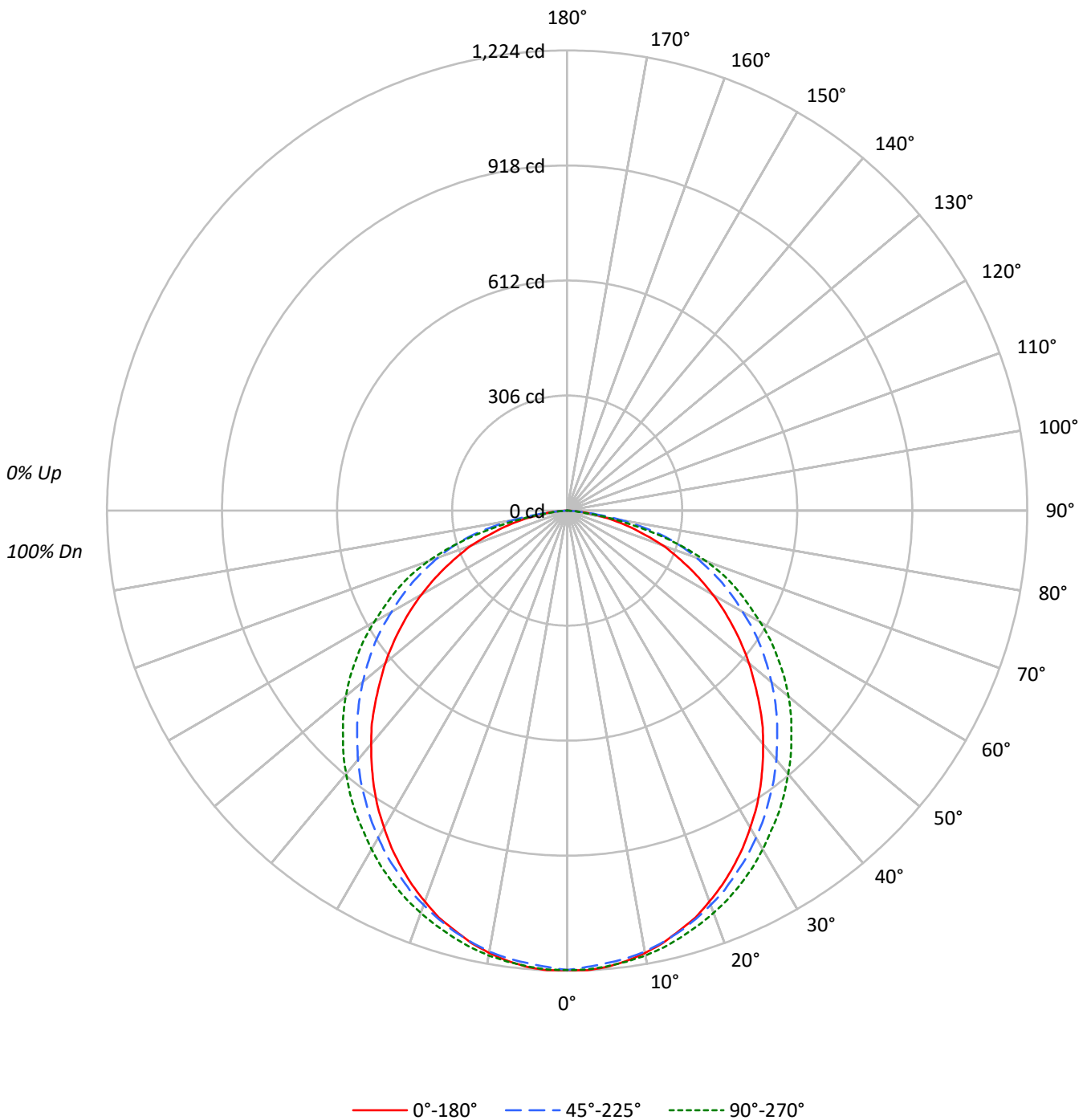
Lumens per Lamp: N/A  
Luminaire Lumens: 3423.0 lumens  
Efficiency: N/A  
Efficacy: 116.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	3288	3288	3288
5°	3292	3264	3287
10°	3265	3255	3283
15°	3220	3229	3272
20°	3169	3198	3261
25°	3104	3159	3250
30°	3027	3122	3233
35°	2944	3077	3223
40°	2850	3041	3214
45°	2745	3003	3210
50°	2643	2970	3219
55°	2532	2946	3209
60°	2411	2905	3188
65°	2269	2896	3188
70°	2136	2871	3098
75°	1853	2805	2647
80°	1499	2263	1762
85°	994	787	525



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.4	3.4
10°-20°	328.3	9.6
20°-30°	492.5	14.4
30°-40°	587.5	17.2
40°-50°	607.4	17.7
50°-60°	554.5	16.2
60°-70°	436.4	12.7
70°-80°	254.0	7.4
80°-90°	46.8	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°	936.3	27.4
0°-40°	1523.8	44.5
0°-60°	2685.7	78.5
0°-90°	3423.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3423.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1222	1222	1222	1222	1222	
5°	1219	1215	1208	1219	1217	116
15°	1156	1158	1159	1174	1174	326
25°	1045	1050	1064	1090	1095	481
35°	896	908	937	972	981	560
45°	721	745	789	833	844	557
55°	540	568	628	674	684	483
65°	356	394	455	490	501	354
75°	178	221	270	265	255	189
85°	32	46	26	20	17	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1222.0	1222.0	1222.0	1222.0	1222.0
2.5°	1223.7	1220.3	1215.2	1223.7	1222.0
5°	1218.6	1215.2	1208.4	1218.6	1216.9
7.5°	1208.4	1205.0	1201.6	1211.8	1210.1
10°	1194.8	1193.1	1191.4	1203.3	1201.6
12.5°	1177.8	1177.8	1176.1	1189.7	1189.7
15°	1155.8	1157.5	1159.2	1174.4	1174.4
17.5°	1135.4	1133.7	1138.8	1155.8	1157.5
20°	1106.5	1109.9	1116.7	1137.1	1138.8
22.5°	1077.7	1081.1	1093.0	1113.3	1118.4
25°	1045.4	1050.5	1064.1	1089.6	1094.7
27.5°	1011.5	1018.3	1037.0	1064.1	1069.2
30°	974.2	984.4	1004.7	1035.3	1040.4
32.5°	936.8	947.0	972.5	1003.0	1009.8
35°	896.1	908.0	936.8	972.5	981.0
37.5°	853.7	868.9	902.9	938.5	948.7
40°	811.2	828.2	865.6	902.9	914.8
42.5°	768.8	785.8	826.5	868.9	880.8
45°	721.3	745.1	789.2	833.3	843.5
47.5°	675.5	700.9	750.1	794.3	807.8
50°	631.3	656.8	709.4	755.2	768.8
52.5°	585.5	612.7	668.7	716.2	728.1
55°	539.7	568.5	627.9	673.8	684.0
57.5°	493.9	524.4	585.5	629.6	641.5
60°	448.0	480.3	539.7	583.8	592.3
62.5°	402.2	436.2	497.3	536.3	544.8
65°	356.4	393.7	454.8	490.5	500.7
67.5°	312.3	349.6	409.0	443.0	451.4
70°	271.5	305.5	364.9	390.3	393.7
72.5°	220.6	263.1	320.8	334.3	325.9
75°	178.2	220.6	269.8	264.8	254.6
77.5°	135.8	178.2	210.4	193.5	179.9
80°	96.7	139.2	146.0	120.5	113.7
82.5°	62.8	96.7	81.5	62.8	50.9
85°	32.2	45.8	25.5	20.4	17.0
87.5°	10.2	6.8	3.4	3.4	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)