

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: P294789

Luminaire Tested: **14CZ2-20-HRP-UNV-L940-CD1-U**

Issue Date: 12/2/2019

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: P294789  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-20-HRP-UNV-L940-CD1-U  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS  
Light Source: (84) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

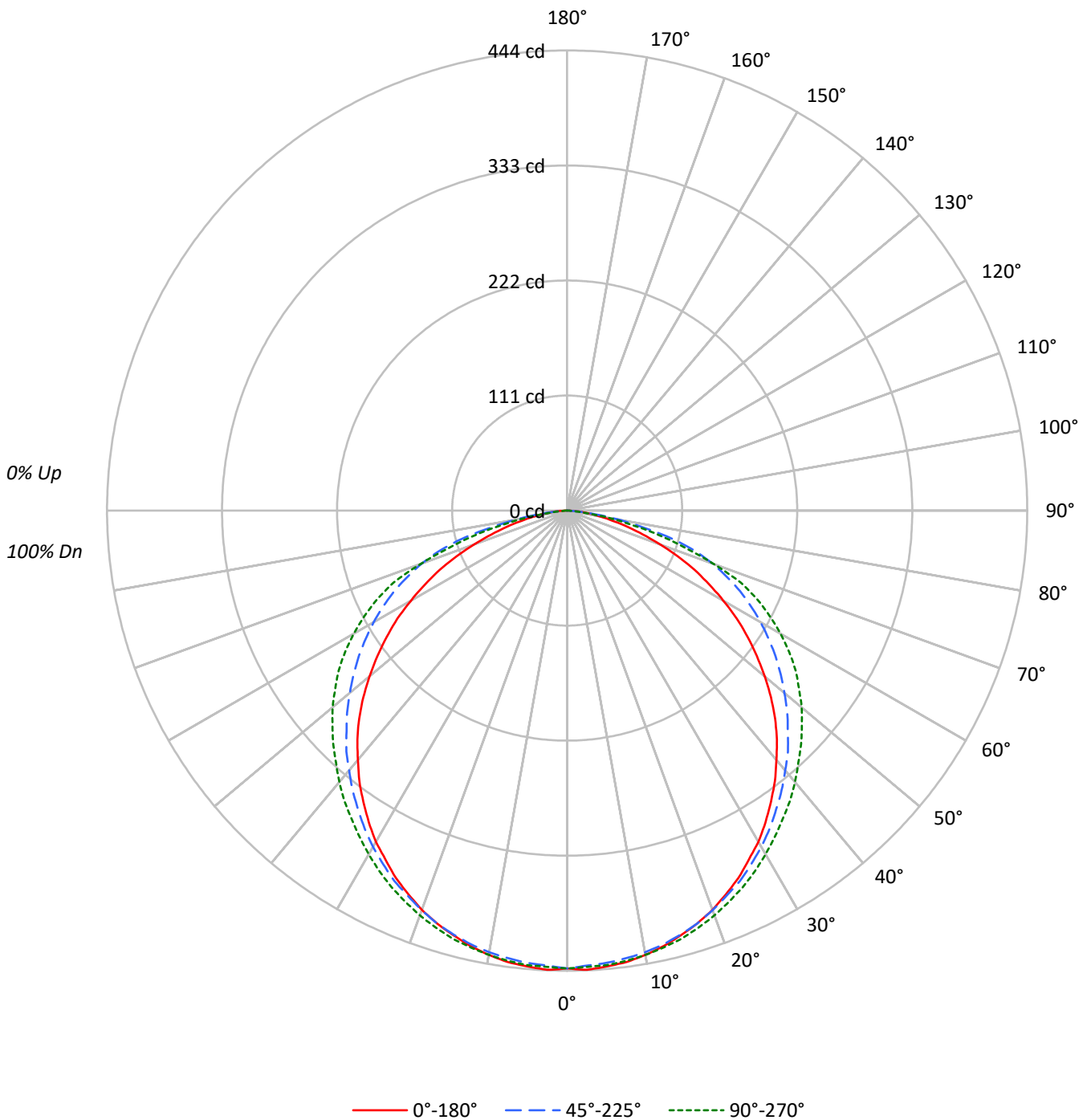
Lumens per Lamp: N/A  
Luminaire Lumens: 1301.0 lumens  
Efficiency: N/A  
Efficacy: 79.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.3  
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	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	1189	1189	1189
5°	1192	1183	1189
10°	1189	1183	1189
15°	1182	1180	1191
20°	1174	1175	1190
25°	1161	1171	1190
30°	1147	1164	1190
35°	1126	1156	1192
40°	1104	1150	1201
45°	1080	1146	1214
50°	1043	1146	1237
55°	998	1152	1263
60°	938	1160	1279
65°	865	1172	1287
70°	753	1175	1184
75°	621	1093	957
80°	488	786	640
85°	380	303	151



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.8	3.2
10°-20°	120.0	9.2
20°-30°	182.3	14.0
30°-40°	220.9	17.0
40°-50°	232.7	17.9
50°-60°	217.3	16.7
60°-70°	173.6	13.3
70°-80°	95.5	7.3
80°-90°	16.9	1.3
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°	344.1	26.5
0°-40°	565.0	43.4
0°-60°	1015.0	78.0
0°-90°	1301.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1301.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	442	442	442	442	442	
5°	441	440	438	441	440	42
15°	424	424	423	428	428	120
25°	391	392	394	400	401	180
35°	343	346	352	361	363	214
45°	284	289	301	315	319	218
55°	213	223	246	263	269	190
65°	136	153	184	199	202	134
75°	60	86	105	94	92	64
85°	12	16	10	6	5	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	441.8	441.8	441.8	441.8	441.8
2.5°	443.5	442.2	439.4	441.8	440.6
5°	441.4	440.2	438.1	441.0	440.2
7.5°	439.4	437.7	435.7	439.0	438.1
10°	435.3	434.1	432.8	435.7	435.3
12.5°	430.4	430.0	428.7	432.0	431.6
15°	424.2	424.2	423.4	427.5	427.5
17.5°	417.7	417.3	417.7	422.2	421.8
20°	409.9	409.9	410.3	415.6	415.6
22.5°	400.5	400.9	402.1	408.7	408.3
25°	391.1	391.9	394.4	400.1	400.9
27.5°	379.6	381.7	384.6	391.5	392.3
30°	369.0	370.2	374.7	381.3	382.9
32.5°	356.3	358.8	363.7	371.1	373.1
35°	342.8	346.1	351.8	360.8	362.9
37.5°	329.3	332.2	340.0	349.4	353.1
40°	314.2	319.1	327.3	337.9	342.0
42.5°	299.5	304.4	315.4	326.5	330.1
45°	283.9	289.2	301.1	314.6	319.1
47.5°	266.7	272.9	288.0	302.3	307.2
50°	249.1	256.9	273.7	289.6	295.4
52.5°	230.7	240.6	259.8	276.6	281.9
55°	212.7	223.4	245.5	262.6	269.2
57.5°	194.3	205.8	230.7	250.4	254.1
60°	174.3	188.2	215.6	232.8	237.7
62.5°	154.6	170.6	200.1	216.4	220.5
65°	135.8	153.0	184.1	199.2	202.1
67.5°	115.4	135.8	166.5	180.4	181.2
70°	95.7	119.5	149.3	155.9	150.5
72.5°	76.5	101.9	129.3	124.0	119.5
75°	59.7	85.5	105.1	94.5	92.0
77.5°	44.2	70.0	75.3	69.5	65.0
80°	31.5	55.2	50.7	43.4	41.3
82.5°	21.7	34.8	27.8	21.7	18.8
85°	12.3	15.5	9.8	6.1	4.9
87.5°	5.3	3.7	2.0	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)