

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: P294790

Luminaire Tested: **14CZ2-20-HRP-UNV-L950-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: P294790  
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-L950-CD1-U  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS  
Light Source: (84) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

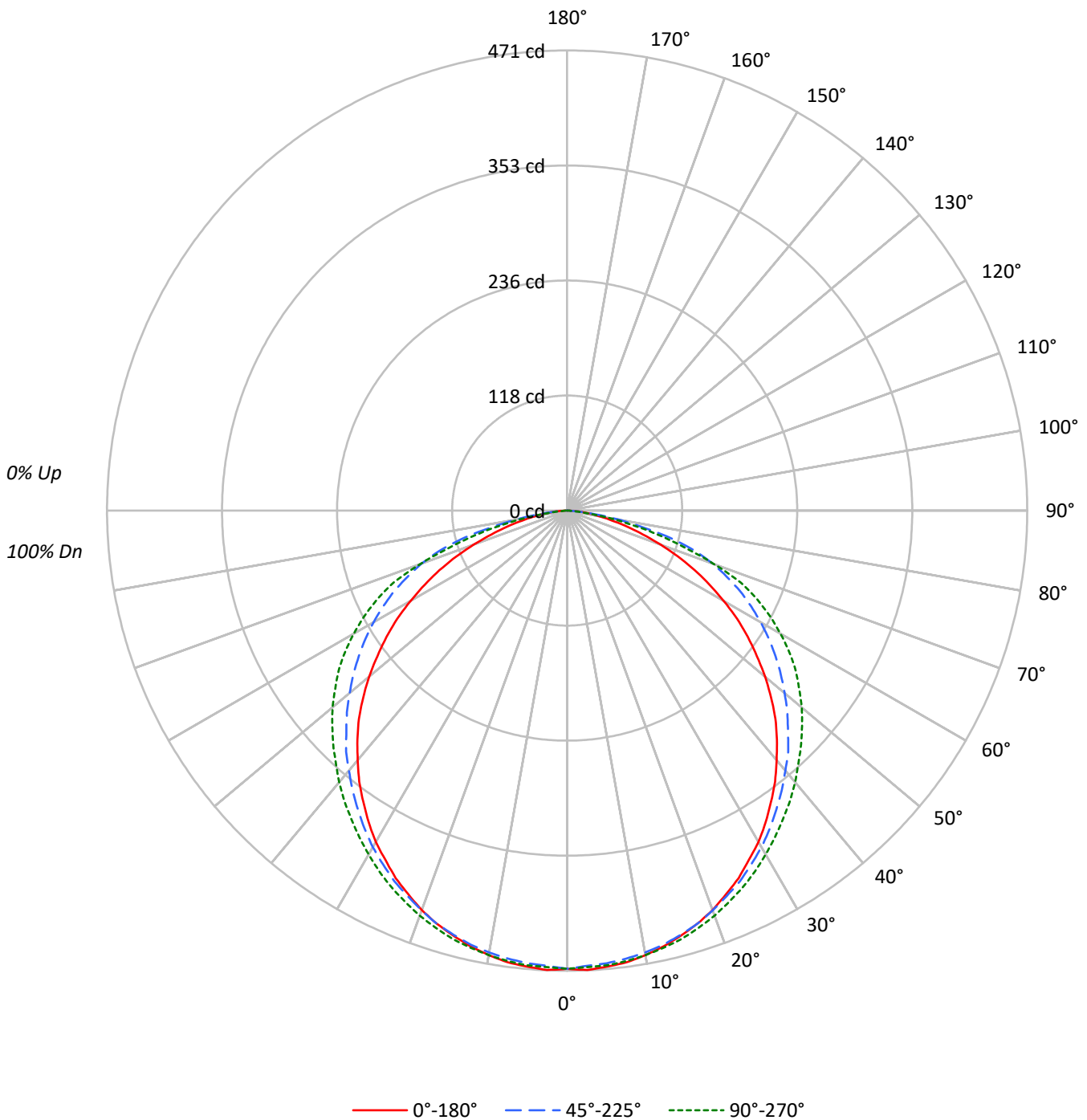
Lumens per Lamp: N/A  
Luminaire Lumens: 1380.9 lumens  
Efficiency: N/A  
Efficacy: 84.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	1262	1262	1262
5°	1266	1256	1262
10°	1262	1255	1262
15°	1254	1252	1264
20°	1246	1247	1263
25°	1233	1243	1263
30°	1217	1236	1263
35°	1195	1227	1265
40°	1172	1220	1275
45°	1147	1216	1289
50°	1107	1216	1312
55°	1059	1222	1340
60°	996	1231	1358
65°	918	1244	1366
70°	799	1247	1257
75°	659	1160	1016
80°	518	834	680
85°	401	321	161



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.4	3.2
10°-20°	127.4	9.2
20°-30°	193.5	14.0
30°-40°	234.4	17.0
40°-50°	247.0	17.9
50°-60°	230.6	16.7
60°-70°	184.3	13.3
70°-80°	101.4	7.3
80°-90°	17.9	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°	365.3	26.5
0°-40°	599.7	43.4
0°-60°	1077.3	78.0
0°-90°	1380.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1380.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	469	469	469	469	469	
5°	468	467	465	468	467	45
15°	450	450	449	454	454	127
25°	415	416	419	425	426	191
35°	364	367	373	383	385	228
45°	301	307	320	334	339	232
55°	226	237	260	279	286	202
65°	144	162	195	212	214	142
75°	63	91	112	100	98	68
85°	13	16	10	6	5	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	469.0	469.0	469.0	469.0	469.0
2.5°	470.7	469.4	466.4	469.0	467.7
5°	468.5	467.2	465.1	468.1	467.2
7.5°	466.4	464.6	462.5	465.9	465.1
10°	462.0	460.7	459.4	462.5	462.0
12.5°	456.8	456.4	455.1	458.6	458.1
15°	450.3	450.3	449.4	453.8	453.8
17.5°	443.4	442.9	443.4	448.1	447.7
20°	435.1	435.1	435.5	441.2	441.2
22.5°	425.1	425.5	426.9	433.8	433.4
25°	415.1	416.0	418.6	424.7	425.5
27.5°	403.0	405.1	408.2	415.6	416.4
30°	391.7	393.0	397.8	404.7	406.4
32.5°	378.2	380.8	386.0	393.8	396.0
35°	363.9	367.4	373.4	383.0	385.2
37.5°	349.6	352.6	360.8	370.8	374.7
40°	333.5	338.7	347.4	358.7	363.0
42.5°	317.9	323.1	334.8	346.5	350.4
45°	301.4	307.0	319.6	333.9	338.7
47.5°	283.1	289.6	305.7	320.9	326.1
50°	264.4	272.7	290.5	307.4	313.5
52.5°	244.9	255.3	275.7	293.5	299.2
55°	225.8	237.1	260.5	278.8	285.7
57.5°	206.3	218.4	244.9	265.8	269.7
60°	185.0	199.7	228.8	247.1	252.3
62.5°	164.1	181.1	212.3	229.7	234.1
65°	144.2	162.4	195.4	211.5	214.5
67.5°	122.5	144.2	176.7	191.5	192.4
70°	101.6	126.8	158.5	165.4	159.8
72.5°	81.2	108.1	137.2	131.6	126.8
75°	63.4	90.8	111.6	100.3	97.7
77.5°	46.9	74.3	79.9	73.8	69.0
80°	33.4	58.6	53.8	46.0	43.9
82.5°	23.0	36.9	29.5	23.0	20.0
85°	13.0	16.5	10.4	6.5	5.2
87.5°	5.6	3.9	2.2	1.7	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)