

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: P475449

Luminaire Tested: **14CZ2-20-HRP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475449  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-20-HRP-UNV-L830-CD1-U  
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

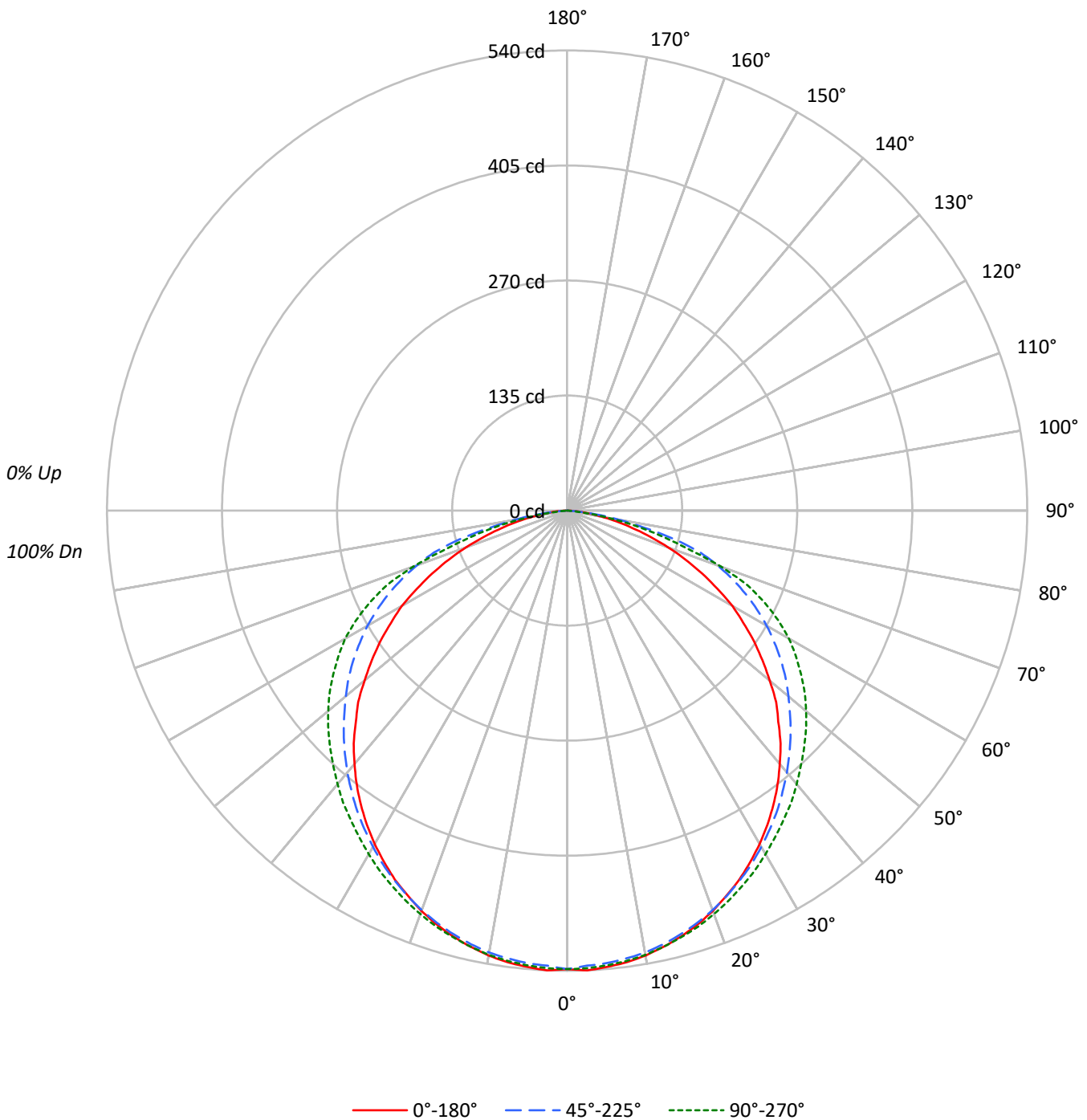
Lumens per Lamp: N/A  
Luminaire Lumens: 1607.7 lumens  
Efficiency: N/A  
Efficacy: 103.1 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 15.6  
Input Voltage (V): 120  
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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	41	33	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	1448	1448	1448
5°	1452	1440	1447
10°	1449	1439	1446
15°	1441	1434	1444
20°	1432	1429	1443
25°	1419	1422	1443
30°	1404	1416	1447
35°	1386	1412	1455
40°	1364	1409	1472
45°	1334	1411	1496
50°	1299	1419	1532
55°	1255	1437	1572
60°	1205	1456	1619
65°	1112	1470	1628
70°	992	1476	1507
75°	831	1367	1172
80°	631	962	769
85°	445	337	108



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.9	3.2
10°-20°	145.9	9.1
20°-30°	221.8	13.8
30°-40°	270.1	16.8
40°-50°	286.9	17.8
50°-60°	271.4	16.9
60°-70°	219.9	13.7
70°-80°	120.6	7.5
80°-90°	20.2	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°	418.7	26.0
0°-40°	688.8	42.8
0°-60°	1247.1	77.6
0°-90°	1607.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1607.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	538	538	538	538	538	
5°	538	537	533	537	536	51
15°	517	516	515	519	518	146
25°	478	478	479	486	486	220
35°	422	423	430	440	443	264
45°	350	356	371	388	393	271
55°	268	280	306	329	335	239
65°	175	195	231	251	256	173
75°	80	110	132	116	113	86
85°	14	19	11	6	4	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	538.1	538.1	538.1	538.1	538.1
2.5°	540.1	538.1	534.6	538.1	537.6
5°	537.6	536.6	533.1	536.6	535.6
7.5°	534.6	533.6	530.2	534.1	533.1
10°	530.2	529.2	526.7	530.2	529.2
12.5°	524.2	523.7	521.2	525.2	524.2
15°	517.3	516.3	514.8	518.7	518.2
17.5°	509.3	508.3	507.3	512.3	511.8
20°	499.9	499.4	498.9	504.3	503.9
22.5°	489.0	489.0	489.5	495.4	495.4
25°	478.0	478.0	479.0	485.5	486.0
27.5°	465.1	466.1	468.1	475.1	476.5
30°	451.7	452.7	455.7	463.6	465.6
32.5°	437.3	438.8	442.8	452.2	454.2
35°	421.9	423.4	429.9	440.3	442.8
37.5°	405.6	408.0	415.5	427.4	431.9
40°	388.2	392.2	401.1	414.0	419.0
42.5°	370.8	374.3	386.2	401.1	406.1
45°	350.5	355.9	370.8	387.7	393.2
47.5°	332.6	337.6	354.9	373.8	380.2
50°	310.3	317.7	339.0	359.9	365.9
52.5°	288.9	298.8	323.2	344.5	351.5
55°	267.6	279.5	306.3	328.6	335.1
57.5°	245.2	258.1	288.4	311.2	318.2
60°	223.9	237.8	270.5	293.9	300.8
62.5°	198.6	215.9	251.2	273.5	279.5
65°	174.7	194.6	230.8	251.2	255.6
67.5°	150.4	173.7	210.0	227.8	229.3
70°	126.1	152.4	187.6	198.6	191.6
72.5°	102.3	131.5	163.8	154.9	146.9
75°	79.9	110.2	131.5	116.2	112.7
77.5°	59.1	90.3	91.8	84.4	81.9
80°	40.7	70.0	62.1	53.6	49.6
82.5°	26.3	43.2	34.3	25.3	22.8
85°	14.4	18.9	10.9	5.5	3.5
87.5°	5.5	3.5	1.5	1.5	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)