

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: P475472

Luminaire Tested: **14CZ2-44-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475472  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-44-HRP-UNV-L840-CD1-U  
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

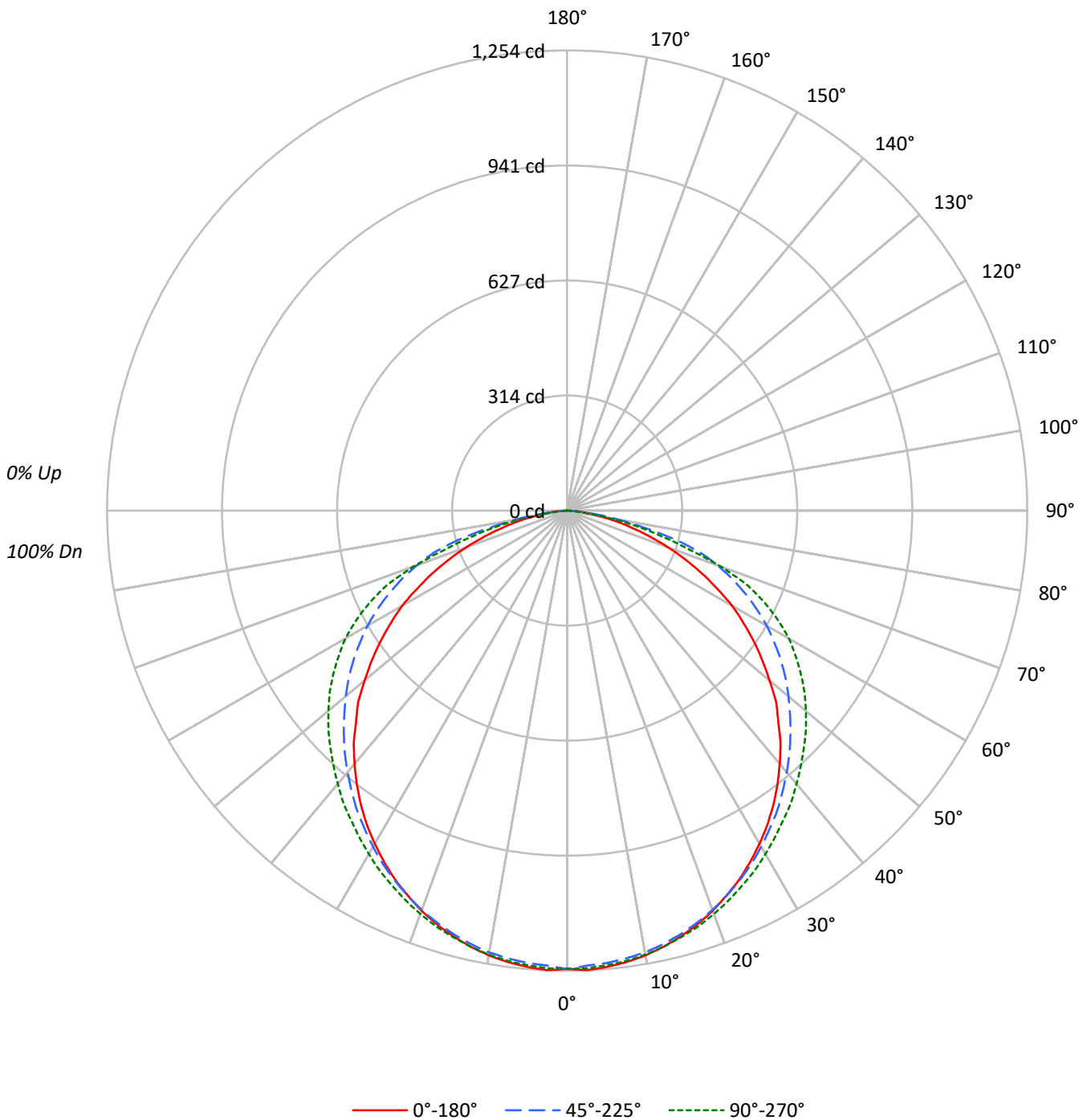
Lumens per Lamp: N/A  
Luminaire Lumens: 3732.1 lumens  
Efficiency: N/A  
Efficacy: 107.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 34.6  
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84				84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69				69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58				58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49				49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42				42
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	43	39	37				37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32				32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29				29
9	56	42	34	28	54	41	33	28	40	33	28	39	33	28	38	32	28	26				26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23				23

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

	0°	45°	90°
0°	3361	3361	3361
5°	3371	3343	3359
10°	3363	3341	3357
15°	3345	3329	3351
20°	3323	3316	3349
25°	3295	3302	3350
30°	3258	3287	3359
35°	3218	3278	3377
40°	3165	3271	3417
45°	3096	3276	3473
50°	3015	3295	3556
55°	2914	3336	3649
60°	2797	3380	3758
65°	2583	3412	3779
70°	2303	3427	3500
75°	1929	3175	2720
80°	1464	2232	1785
85°	1031	784	250



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.2	3.2
10°-20°	338.8	9.1
20°-30°	514.9	13.8
30°-40°	627.0	16.8
40°-50°	666.0	17.8
50°-60°	630.0	16.9
60°-70°	510.5	13.7
70°-80°	279.9	7.5
80°-90°	46.8	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°	972.0	26.0
0°-40°	1598.9	42.8
0°-60°	2895.0	77.6
0°-90°	3732.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3732.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1249	1249	1249	1249	1249	
5°	1248	1246	1238	1246	1243	119
15°	1201	1198	1195	1204	1203	339
25°	1110	1110	1112	1127	1128	511
35°	980	983	998	1022	1028	612
45°	814	826	861	900	913	629
55°	621	649	711	763	778	555
65°	406	452	536	583	594	401
75°	186	256	305	270	262	199
85°	33	44	25	13	8	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1249.1	1249.1	1249.1	1249.1	1249.1
2.5°	1253.7	1249.1	1241.1	1249.1	1248.0
5°	1248.0	1245.7	1237.6	1245.7	1243.4
7.5°	1241.1	1238.8	1230.7	1239.9	1237.6
10°	1230.7	1228.4	1222.6	1230.7	1228.4
12.5°	1216.9	1215.7	1210.0	1219.2	1216.9
15°	1200.7	1198.4	1195.0	1204.2	1203.0
17.5°	1182.3	1180.0	1177.7	1189.2	1188.1
20°	1160.4	1159.2	1158.1	1170.8	1169.6
22.5°	1135.1	1135.1	1136.2	1150.0	1150.0
25°	1109.7	1109.7	1112.0	1127.0	1128.1
27.5°	1079.7	1082.0	1086.7	1102.8	1106.2
30°	1048.6	1050.9	1057.8	1076.3	1080.9
32.5°	1015.2	1018.7	1027.9	1049.8	1054.4
35°	979.5	982.9	997.9	1022.1	1027.9
37.5°	941.5	947.2	964.5	992.2	1002.5
40°	901.1	910.3	931.1	961.0	972.6
42.5°	860.8	868.9	896.5	931.1	942.6
45°	813.5	826.2	860.8	900.0	912.6
47.5°	772.1	783.6	823.9	867.7	882.7
50°	720.2	737.5	787.0	835.4	849.3
52.5°	670.7	693.7	750.2	799.7	815.9
55°	621.1	648.8	711.0	762.8	777.8
57.5°	569.3	599.2	669.5	722.5	738.6
60°	519.7	552.0	628.0	682.2	698.3
62.5°	460.9	501.3	583.1	634.9	648.8
65°	405.6	451.7	535.8	583.1	593.5
67.5°	349.2	403.3	487.4	528.9	532.4
70°	292.7	353.8	435.6	460.9	444.8
72.5°	237.4	305.4	380.3	359.5	341.1
75°	185.5	255.8	305.4	269.6	261.6
77.5°	137.1	209.7	213.2	195.9	190.1
80°	94.5	162.5	144.0	124.5	115.2
82.5°	61.1	100.3	79.5	58.8	53.0
85°	33.4	43.8	25.4	12.7	8.1
87.5°	12.7	8.1	3.5	3.5	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)