

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: P474271

Luminaire Tested: **24CZ2-40HE-RDP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474271  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40HE-RDP-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ RDP INSERT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2829.3 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

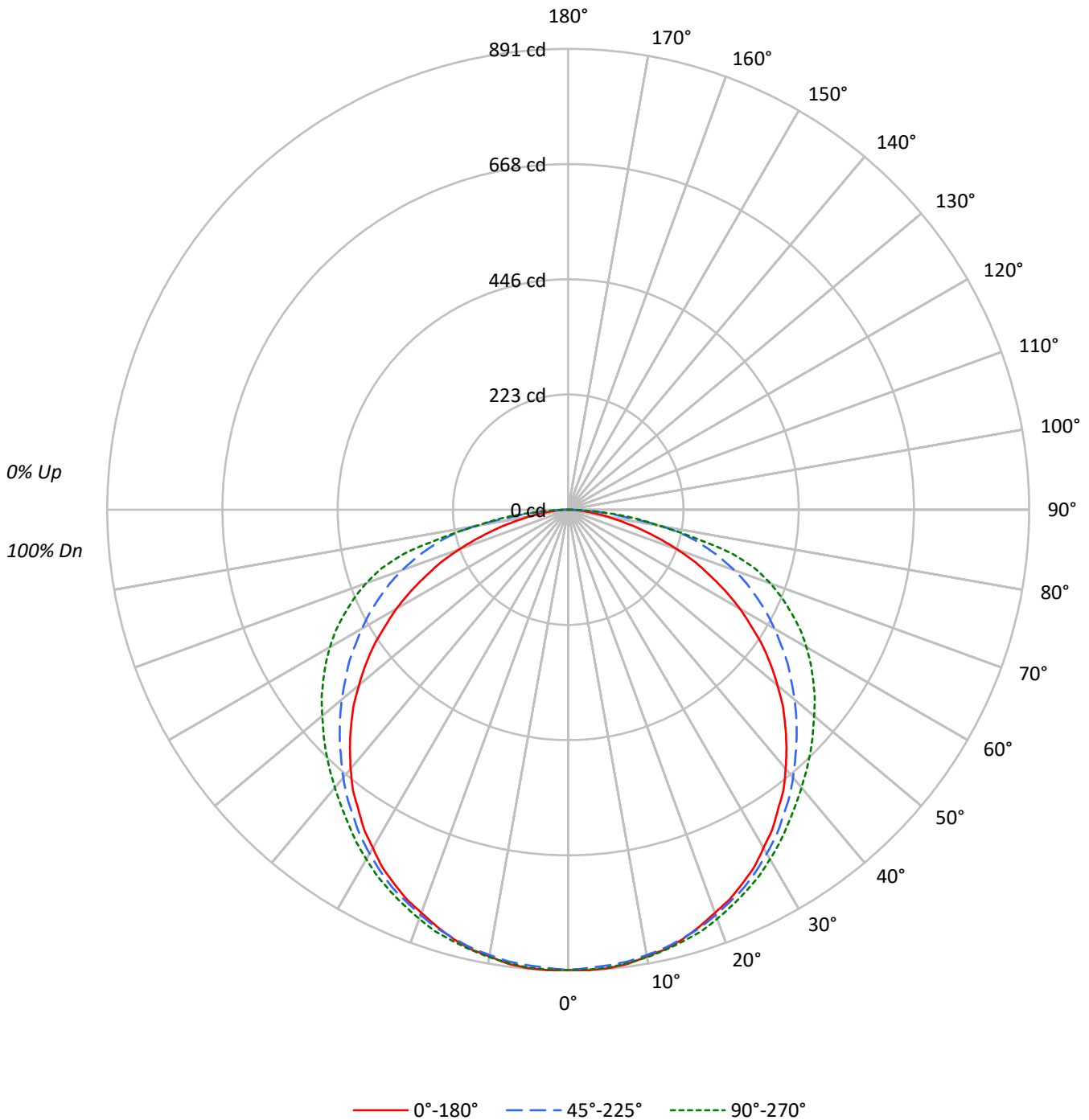
Input Watts (W): 30.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24

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

	0°	45°	90°
0°	1197	1197	1197
5°	1202	1194	1200
10°	1198	1195	1200
15°	1196	1194	1202
20°	1188	1194	1206
25°	1183	1196	1208
30°	1173	1193	1212
35°	1162	1189	1217
40°	1149	1188	1232
45°	1130	1188	1260
50°	1105	1196	1298
55°	1076	1215	1356
60°	1031	1239	1431
65°	965	1282	1519
70°	878	1342	1634
75°	744	1416	1707
80°	587	1424	1381
85°	434	1084	1213



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.4	3.0
10°-20°	242.9	8.6
20°-30°	371.4	13.1
30°-40°	454.1	16.0
40°-50°	484.0	17.1
50°-60°	462.7	16.4
60°-70°	392.0	13.9
70°-80°	263.4	9.3
80°-90°	74.3	2.6
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°	698.8	24.7
0°-40°	1152.8	40.7
0°-60°	2099.5	74.2
0°-90°	2829.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2829.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	890	890	890	890	890	
5°	890	888	884	888	888	85
15°	859	859	858	864	863	242
25°	797	800	806	812	814	367
35°	707	713	724	738	741	443
45°	594	604	624	651	662	458
55°	459	476	518	558	578	409
65°	303	334	403	456	477	301
75°	143	195	272	319	328	153
85°	28	58	70	76	79	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	889.8	889.8	889.8	889.8	889.8
2.5°	891.2	891.2	887.0	889.8	889.8
5°	889.8	888.4	884.2	888.4	888.4
7.5°	885.6	884.2	881.3	885.6	884.2
10°	877.1	877.1	874.3	878.5	878.5
12.5°	870.1	868.7	867.3	872.9	871.5
15°	858.9	858.9	857.5	864.5	863.1
17.5°	844.8	846.2	847.6	853.3	854.7
20°	829.4	832.2	833.6	842.0	842.0
22.5°	815.4	816.8	819.6	828.0	828.0
25°	797.1	799.9	805.5	812.5	813.9
27.5°	778.8	780.3	787.3	797.1	798.5
30°	755.0	759.2	767.6	778.8	780.3
32.5°	733.9	738.1	748.0	759.2	762.0
35°	707.2	712.9	724.1	738.1	740.9
37.5°	683.4	687.6	701.6	717.1	721.3
40°	654.0	662.3	676.3	694.6	701.6
42.5°	624.5	633.0	649.8	673.5	682.0
45°	593.6	603.5	624.5	651.2	662.3
47.5°	562.8	574.0	597.9	628.7	641.4
50°	527.7	541.7	571.2	606.3	620.3
52.5°	494.0	510.8	543.1	582.4	600.7
55°	458.9	475.7	517.8	558.5	578.2
57.5°	419.5	442.0	488.3	534.7	555.7
60°	383.2	404.1	460.3	510.8	531.9
62.5°	343.9	371.9	432.2	485.5	506.6
65°	303.1	334.0	402.7	456.0	477.1
67.5°	266.6	300.3	373.3	426.6	447.6
70°	223.1	265.2	341.1	394.3	415.3
72.5°	182.4	228.7	307.4	359.3	379.0
75°	143.1	195.0	272.3	318.6	328.4
77.5°	106.7	161.3	235.7	255.4	248.4
80°	75.8	129.2	183.8	174.0	178.2
82.5°	49.1	98.3	113.7	129.2	133.2
85°	28.1	57.6	70.2	75.8	78.6
87.5°	12.6	21.1	28.1	28.1	26.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)