

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: P474284

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

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474284  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40VHE-RDP-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY 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: 2765.1 lumens  
Efficiency: N/A  
Efficacy: 101.3 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

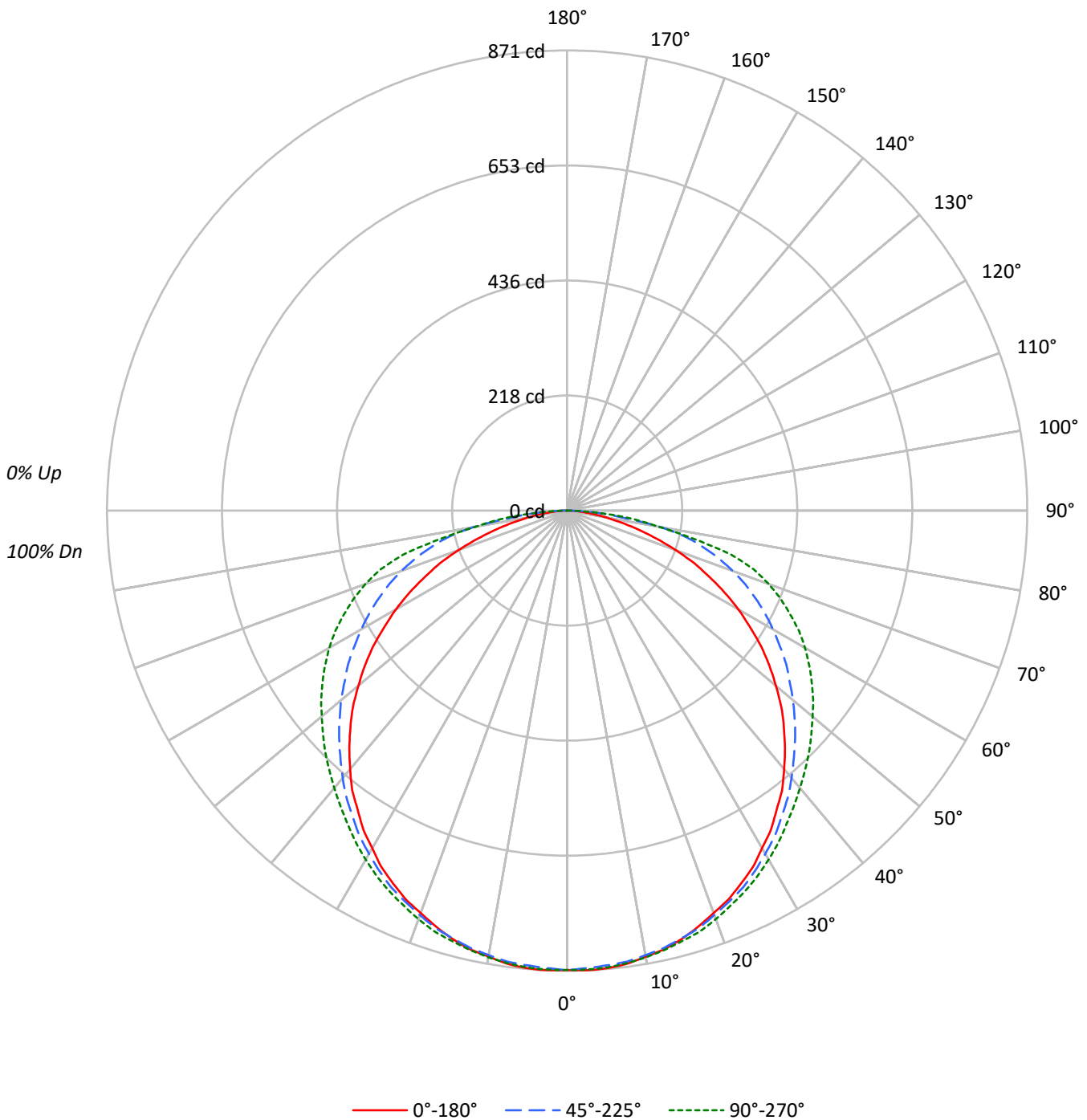
Input Watts (W): 27.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	89		92	89	87		88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		34	28	24	22

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

	0°	45°	90°
0°	1170	1170	1170
5°	1175	1167	1173
10°	1171	1167	1173
15°	1169	1167	1175
20°	1161	1167	1178
25°	1156	1169	1181
30°	1146	1166	1185
35°	1135	1162	1189
40°	1123	1161	1204
45°	1104	1161	1232
50°	1079	1168	1269
55°	1052	1187	1326
60°	1008	1210	1399
65°	943	1253	1485
70°	858	1311	1597
75°	727	1383	1669
80°	574	1392	1349
85°	423	1059	1186



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.5	3.0
10°-20°	237.4	8.6
20°-30°	363.0	13.1
30°-40°	443.8	16.0
40°-50°	473.0	17.1
50°-60°	452.2	16.4
60°-70°	383.1	13.9
70°-80°	257.5	9.3
80°-90°	72.6	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°	682.9	24.7
0°-40°	1126.7	40.7
0°-60°	2051.9	74.2
0°-90°	2765.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2765.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	870	870	870	870	870	
5°	870	868	864	868	868	83
15°	839	839	838	845	844	237
25°	779	782	787	794	796	359
35°	691	697	708	721	724	433
45°	580	590	610	636	647	448
55°	448	465	506	546	565	399
65°	296	326	394	446	466	294
75°	140	191	266	311	321	150
85°	27	56	69	74	77	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	869.6	869.6	869.6	869.6	869.6
2.5°	871.0	871.0	866.8	869.6	869.6
5°	869.6	868.2	864.1	868.2	868.2
7.5°	865.5	864.1	861.4	865.5	864.1
10°	857.2	857.2	854.5	858.6	858.6
12.5°	850.4	849.0	847.6	853.1	851.7
15°	839.4	839.4	838.0	844.9	843.5
17.5°	825.7	827.0	828.4	833.9	835.3
20°	810.6	813.3	814.7	822.9	822.9
22.5°	796.9	798.2	801.0	809.2	809.2
25°	779.0	781.8	787.3	794.1	795.5
27.5°	761.2	762.6	769.4	779.0	780.4
30°	737.9	742.0	750.2	761.2	762.6
32.5°	717.3	721.4	731.0	742.0	744.7
35°	691.2	696.7	707.7	721.4	724.1
37.5°	667.9	672.0	685.7	700.8	704.9
40°	639.2	647.3	661.0	678.8	685.7
42.5°	610.4	618.6	635.1	658.3	666.5
45°	580.2	589.8	610.4	636.4	647.3
47.5°	550.0	561.0	584.3	614.5	626.8
50°	515.7	529.4	558.2	592.5	606.3
52.5°	482.8	499.2	530.8	569.2	587.0
55°	448.4	464.9	506.1	545.9	565.1
57.5°	410.0	432.0	477.3	522.5	543.1
60°	374.5	394.9	449.8	499.2	519.8
62.5°	336.1	363.5	422.4	474.5	495.1
65°	296.3	326.5	393.6	445.7	466.3
67.5°	260.6	293.5	364.9	416.9	437.5
70°	218.0	259.2	333.3	385.3	405.9
72.5°	178.3	223.5	300.4	351.2	370.4
75°	139.8	190.6	266.1	311.4	321.0
77.5°	104.3	157.7	230.4	249.6	242.7
80°	74.1	126.2	179.6	170.0	174.1
82.5°	48.0	96.1	111.2	126.2	130.2
85°	27.4	56.3	68.6	74.1	76.8
87.5°	12.4	20.6	27.4	27.4	26.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)