

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: P474412

Luminaire Tested: **24CZ2-35-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474412  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35-HRP-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

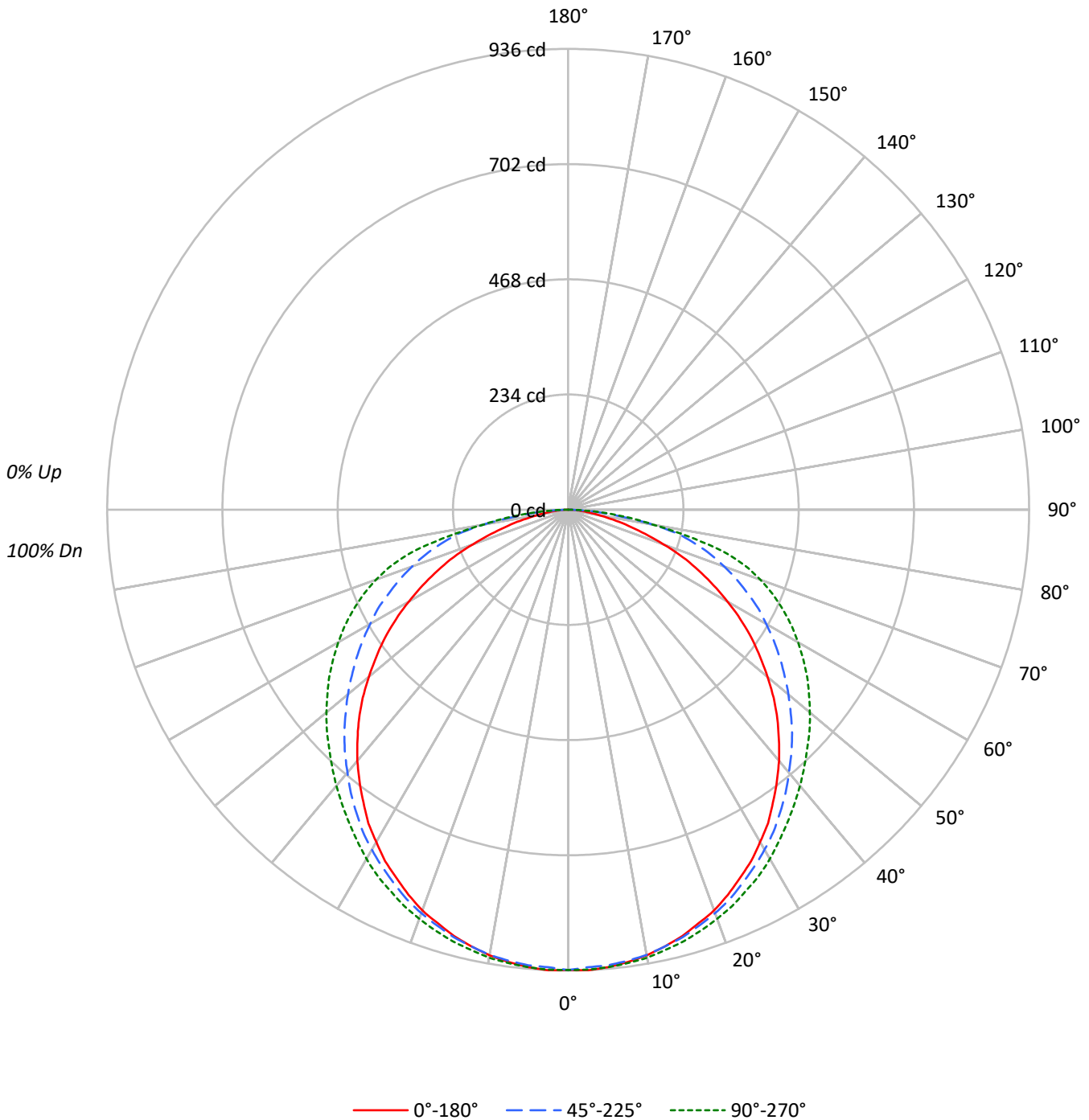
Lumens per Lamp: N/A  
Luminaire Lumens: 2881.6 lumens  
Efficiency: N/A  
Efficacy: 104.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 27.6  
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	108	103	98	94	105	101	96	93	96	93	90		92	90	87		89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		35	29	24	23

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

	0°	45°	90°
0°	1258	1258	1258
5°	1260	1255	1260
10°	1256	1254	1262
15°	1249	1252	1264
20°	1240	1249	1266
25°	1225	1243	1268
30°	1211	1239	1273
35°	1191	1232	1274
40°	1170	1225	1286
45°	1143	1224	1306
50°	1106	1222	1341
55°	1067	1231	1389
60°	1006	1250	1451
65°	930	1279	1533
70°	812	1324	1633
75°	659	1392	1687
80°	487	1365	1365
85°	372	1005	1135



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.6	3.1
10°-20°	254.3	8.8
20°-30°	387.2	13.4
30°-40°	470.1	16.3
40°-50°	496.7	17.2
50°-60°	468.7	16.3
60°-70°	389.7	13.5
70°-80°	256.4	8.9
80°-90°	69.9	2.4
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°	730.1	25.3
0°-40°	1200.2	41.7
0°-60°	2165.6	75.2
0°-90°	2881.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2881.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	935	935	935	935	935	
5°	933	933	929	933	933	89
15°	896	898	899	907	907	253
25°	825	830	837	852	854	381
35°	725	734	750	770	776	454
45°	601	613	643	674	686	463
55°	455	474	525	574	592	405
65°	292	326	402	461	481	289
75°	127	185	268	317	324	137
85°	24	53	65	72	74	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	934.9	934.9	934.9	934.9	934.9
2.5°	936.2	934.9	930.1	934.9	934.9
5°	932.6	932.6	928.9	932.6	932.6
7.5°	926.5	926.5	924.0	928.9	928.9
10°	919.2	919.2	918.1	924.0	924.0
12.5°	908.4	909.5	908.4	915.6	915.6
15°	896.3	897.5	898.8	907.2	907.2
17.5°	880.7	883.0	885.5	895.1	896.3
20°	866.2	867.3	872.2	883.0	884.3
22.5°	846.9	850.5	856.6	867.3	871.0
25°	825.1	829.9	837.2	851.7	854.1
27.5°	804.7	808.3	817.9	833.6	838.5
30°	779.3	785.4	797.4	813.1	819.2
32.5°	755.1	761.2	775.7	792.5	797.4
35°	725.1	733.5	750.3	769.6	775.7
37.5°	696.1	704.5	725.1	746.7	754.0
40°	665.9	675.5	697.3	722.6	732.2
42.5°	633.3	646.6	670.7	698.4	709.3
45°	600.7	612.9	643.0	674.3	686.4
47.5°	565.8	580.3	612.9	650.3	664.8
50°	528.4	546.5	583.9	624.9	640.6
52.5°	491.0	511.5	553.7	599.5	616.5
55°	454.8	474.1	524.7	574.3	592.3
57.5°	415.0	439.2	494.6	547.6	565.8
60°	373.9	400.5	464.4	519.9	539.2
62.5°	332.9	363.1	435.5	491.0	511.5
65°	292.0	325.8	401.8	460.8	481.4
67.5°	252.1	289.5	370.3	429.5	449.9
70°	206.3	253.3	336.5	394.5	415.0
72.5°	164.1	218.4	304.0	358.3	376.4
75°	126.7	184.6	267.8	317.2	324.5
77.5°	92.9	150.8	230.4	247.3	248.5
80°	62.8	120.6	176.2	173.7	176.2
82.5°	41.0	90.5	110.9	124.3	125.4
85°	24.1	53.1	65.1	72.4	73.5
87.5°	12.0	18.1	22.9	24.1	26.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)