

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: P474370

Luminaire Tested: **24CZ2-35HE-HRP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474370  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35HE-HRP-UNV-L830-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2880.8 lumens  
Efficiency: N/A  
Efficacy: 106.7 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

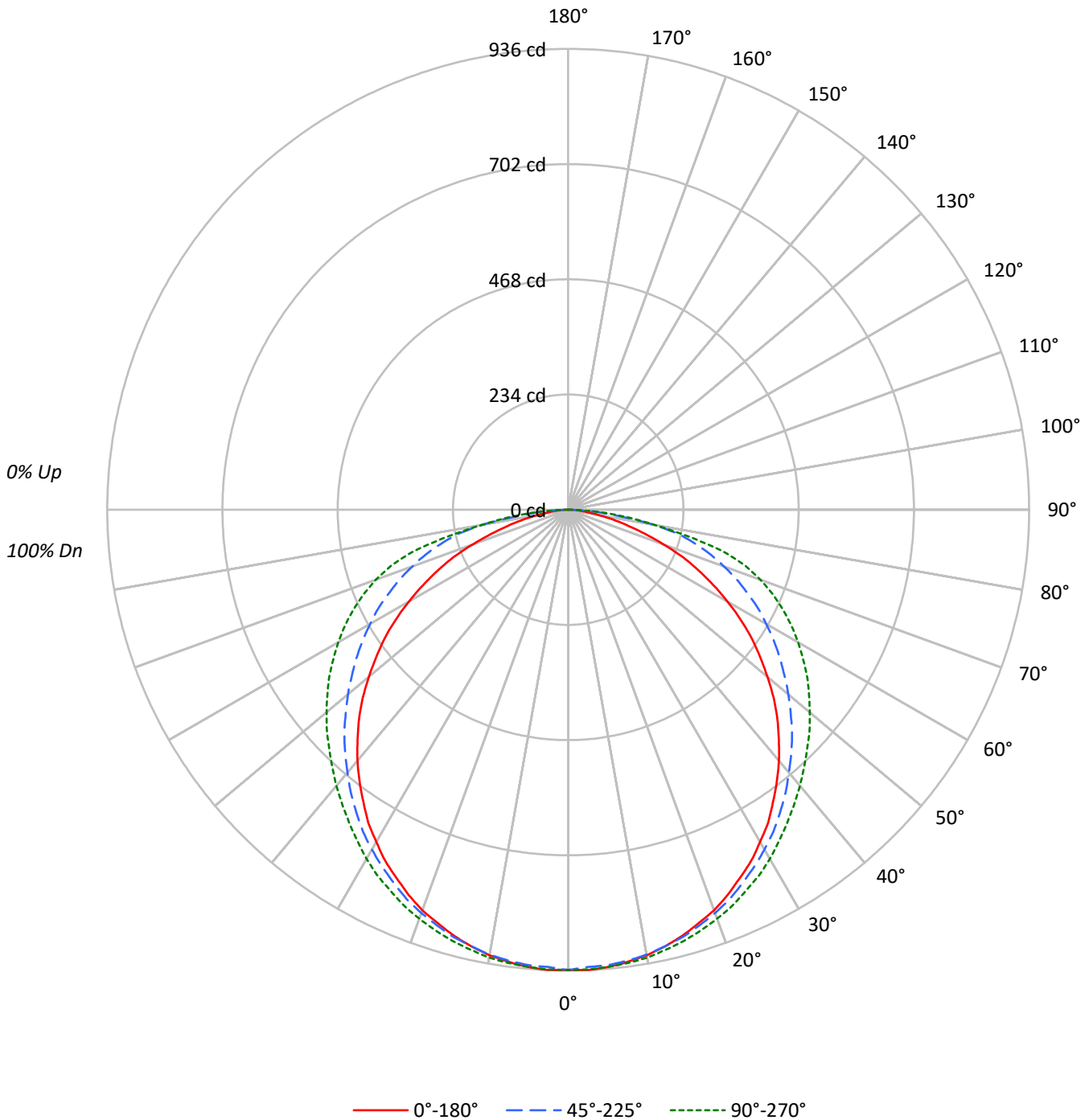
Input Watts (W): 27  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1259	1254	1259
10°	1255	1254	1262
15°	1248	1252	1263
20°	1240	1248	1266
25°	1225	1243	1268
30°	1210	1238	1272
35°	1191	1232	1274
40°	1169	1224	1286
45°	1143	1223	1306
50°	1106	1222	1340
55°	1066	1231	1389
60°	1006	1249	1451
65°	929	1279	1532
70°	811	1323	1632
75°	658	1392	1686
80°	487	1364	1364
85°	372	1005	1135



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.5	3.1
10°-20°	254.3	8.8
20°-30°	387.1	13.4
30°-40°	470.0	16.3
40°-50°	496.6	17.2
50°-60°	468.6	16.3
60°-70°	389.6	13.5
70°-80°	256.3	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°	729.9	25.3
0°-40°	1199.9	41.7
0°-60°	2165.0	75.2
0°-90°	2880.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2880.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	935	935	935	935	935	
5°	932	932	929	932	932	89
15°	896	897	898	907	907	253
25°	825	830	837	852	854	381
35°	725	733	750	769	776	454
45°	601	613	643	674	686	463
55°	455	474	525	574	592	405
65°	292	326	402	461	481	288
75°	127	185	268	317	324	136
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°	934.7	934.7	934.7	934.7	934.7
2.5°	935.9	934.7	929.8	934.7	934.7
5°	932.3	932.3	928.6	932.3	932.3
7.5°	926.3	926.3	923.8	928.6	928.6
10°	918.9	918.9	917.8	923.8	923.8
12.5°	908.2	909.3	908.2	915.4	915.4
15°	896.0	897.3	898.5	906.9	906.9
17.5°	880.5	882.8	885.3	894.8	896.0
20°	866.0	867.1	871.9	882.8	884.0
22.5°	846.7	850.3	856.3	867.1	870.8
25°	824.9	829.7	837.0	851.5	853.8
27.5°	804.5	808.0	817.7	833.4	838.2
30°	779.1	785.1	797.1	812.9	818.9
32.5°	754.9	761.0	775.5	792.3	797.1
35°	724.9	733.3	750.1	769.4	775.5
37.5°	695.9	704.3	724.9	746.5	753.8
40°	665.7	675.3	697.1	722.4	732.0
42.5°	633.1	646.4	670.5	698.2	709.1
45°	600.6	612.7	642.8	674.1	686.2
47.5°	565.7	580.2	612.7	650.1	664.6
50°	528.3	546.4	583.8	624.7	640.4
52.5°	490.9	511.3	553.5	599.3	616.3
55°	454.6	474.0	524.6	574.1	592.2
57.5°	414.9	439.1	494.5	547.5	565.7
60°	373.8	400.4	464.3	519.8	539.1
62.5°	332.8	363.0	435.3	490.9	511.3
65°	291.9	325.7	401.7	460.7	481.3
67.5°	252.0	289.4	370.2	429.4	449.8
70°	206.2	253.3	336.4	394.4	414.9
72.5°	164.0	218.3	303.9	358.2	376.3
75°	126.6	184.6	267.7	317.1	324.4
77.5°	92.8	150.8	230.4	247.2	248.4
80°	62.8	120.6	176.1	173.7	176.1
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)