

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: P473870

Luminaire Tested: **24CZ2-35HE-UNV-L840-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473870  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35HE-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3754.9 lumens  
Efficiency: N/A  
Efficacy: 139.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

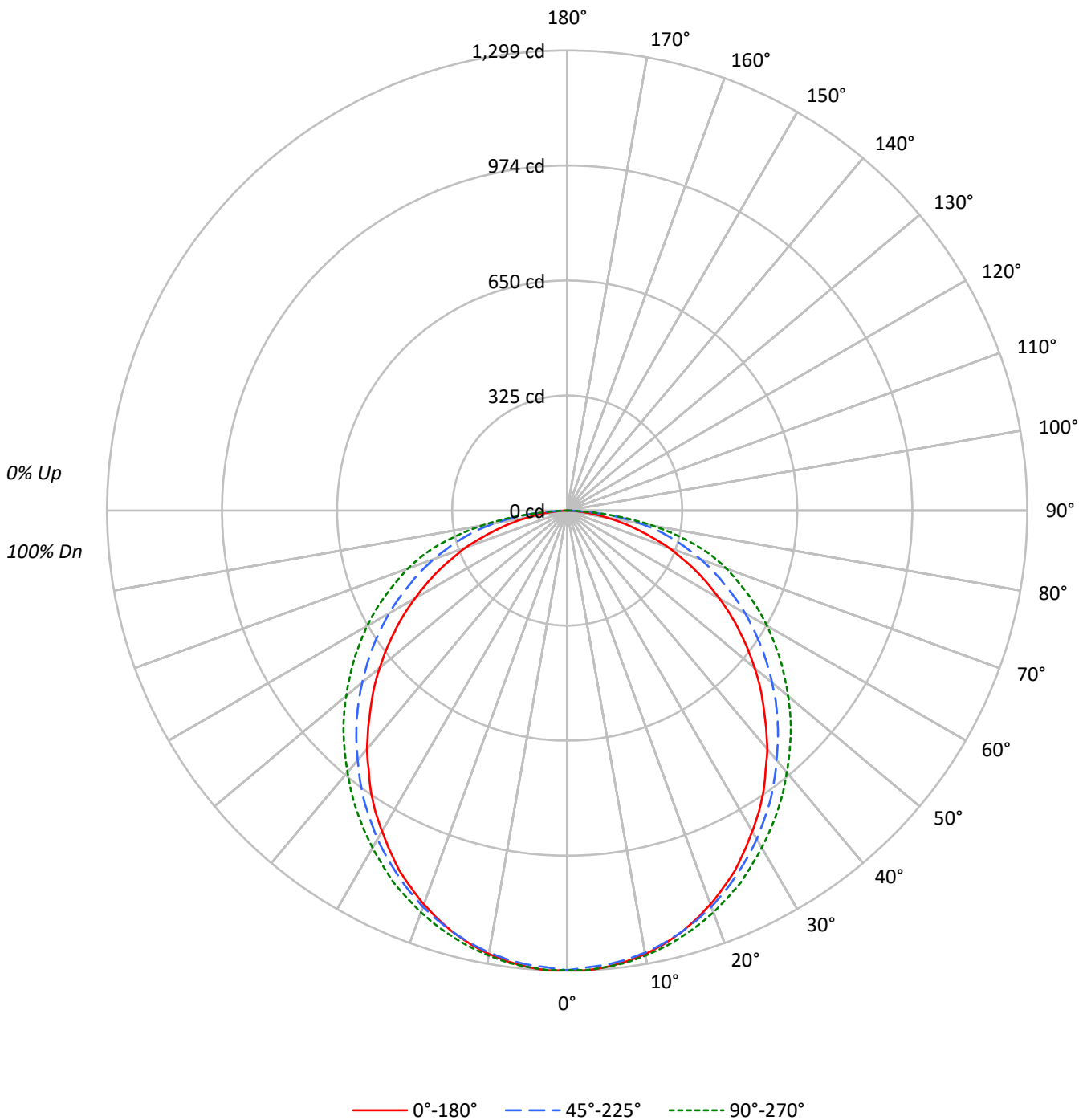
Input Watts (W): 27  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

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

	0°	45°	90°
0°	1746	1746	1746
5°	1747	1738	1747
10°	1737	1731	1743
15°	1720	1719	1736
20°	1694	1704	1729
25°	1664	1683	1720
30°	1624	1663	1708
35°	1587	1642	1701
40°	1544	1615	1694
45°	1491	1599	1699
50°	1446	1581	1704
55°	1393	1570	1723
60°	1335	1562	1755
65°	1273	1557	1800
70°	1198	1573	1883
75°	1053	1605	1958
80°	879	1617	1890
85°	627	1386	1405



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.7	3.3
10°-20°	349.4	9.3
20°-30°	524.1	14.0
30°-40°	625.8	16.7
40°-50°	648.2	17.3
50°-60°	596.7	15.9
60°-70°	481.4	12.8
70°-80°	314.5	8.4
80°-90°	92.2	2.5
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°	996.2	26.5
0°-40°	1622.0	43.2
0°-60°	2866.9	76.3
0°-90°	3754.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3754.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1293	1292	1287	1294	1293	123
15°	1234	1234	1234	1246	1246	348
25°	1121	1124	1134	1154	1159	515
35°	966	975	1000	1027	1036	604
45°	784	803	840	878	893	606
55°	594	619	669	718	735	531
65°	400	427	489	545	565	395
75°	203	241	309	362	377	216
85°	41	70	90	95	91	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1297.6	1297.6	1297.6	1297.6	1297.6
2.5°	1299.4	1297.6	1290.9	1298.8	1298.2
5°	1293.3	1292.1	1286.7	1293.9	1293.3
7.5°	1283.6	1283.0	1278.8	1286.7	1286.7
10°	1271.5	1270.3	1267.2	1276.3	1275.7
12.5°	1254.5	1253.9	1252.1	1263.0	1262.4
15°	1234.5	1234.5	1233.9	1246.0	1246.0
17.5°	1210.2	1210.8	1213.3	1227.2	1227.8
20°	1182.9	1185.3	1190.2	1206.0	1207.2
22.5°	1152.0	1156.8	1163.5	1181.1	1182.9
25°	1121.0	1123.5	1133.8	1154.4	1158.7
27.5°	1083.4	1089.5	1102.8	1124.1	1128.3
30°	1045.2	1053.7	1070.7	1092.5	1099.2
32.5°	1007.6	1014.9	1034.9	1059.8	1067.7
35°	966.4	974.8	999.7	1027.0	1035.5
37.5°	920.9	934.2	960.3	991.8	1000.9
40°	879.0	891.1	919.6	954.8	964.5
42.5°	831.1	846.2	880.8	916.6	928.7
45°	783.8	803.2	840.2	877.8	893.0
47.5°	739.5	755.2	798.9	841.4	854.7
50°	690.9	709.1	755.2	800.1	814.1
52.5°	643.0	664.9	711.6	758.9	774.1
55°	593.9	619.4	669.1	718.2	734.6
57.5°	546.6	572.0	623.6	675.8	692.8
60°	496.2	523.5	580.5	630.9	652.1
62.5°	447.7	475.0	535.0	589.6	609.7
65°	399.8	427.1	488.9	544.8	565.4
67.5°	350.0	379.7	445.9	499.9	519.9
70°	304.5	333.0	399.8	457.4	478.6
72.5°	252.4	286.3	354.3	411.3	431.3
75°	202.6	240.8	308.8	362.2	376.7
77.5°	156.5	194.7	262.7	302.7	311.8
80°	113.4	152.3	208.7	236.6	243.9
82.5°	73.4	113.4	151.0	169.9	172.3
85°	40.6	70.4	89.8	95.2	91.0
87.5°	14.6	26.7	26.1	21.2	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)