

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: P473770

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473770
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35HE-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3556.0 lumens
Efficiency: N/A
Efficacy: 131.7 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

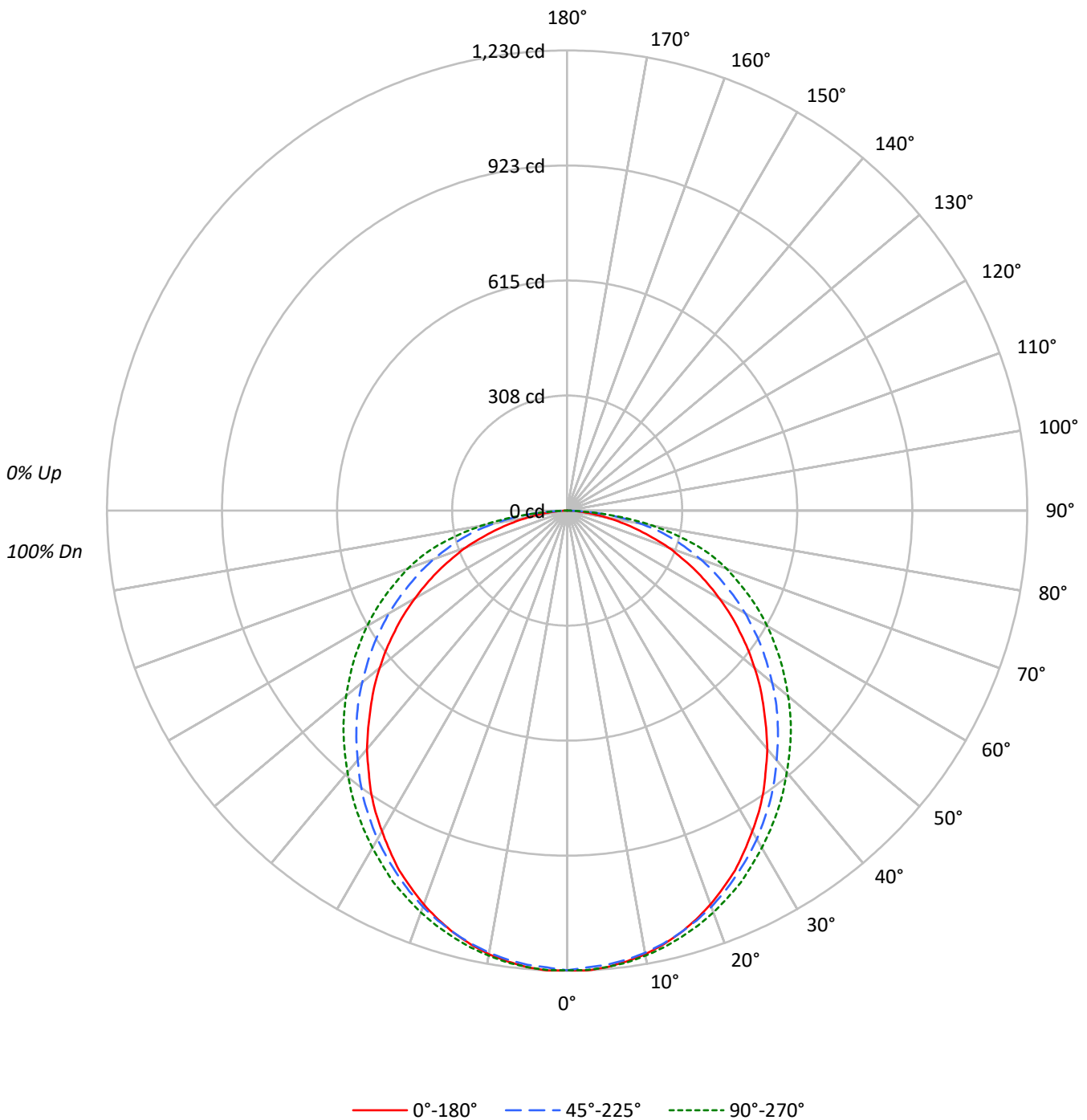
Input Watts (W): 27
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1653	1653	1653
5°	1654	1646	1654
10°	1645	1640	1651
15°	1629	1628	1644
20°	1604	1614	1637
25°	1576	1594	1629
30°	1538	1575	1617
35°	1503	1555	1611
40°	1462	1530	1604
45°	1412	1514	1609
50°	1370	1497	1614
55°	1319	1487	1632
60°	1264	1480	1662
65°	1205	1474	1705
70°	1135	1489	1783
75°	998	1520	1855
80°	832	1531	1789
85°	594	1312	1331



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.2	3.3
10°-20°	330.9	9.3
20°-30°	496.4	14.0
30°-40°	592.6	16.7
40°-50°	613.8	17.3
50°-60°	565.1	15.9
60°-70°	455.8	12.8
70°-80°	297.9	8.4
80°-90°	87.3	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°	943.4	26.5
0°-40°	1536.0	43.2
0°-60°	2715.0	76.3
0°-90°	3556.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3556.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1229	1229	1229	1229	1229	
5°	1225	1224	1218	1225	1225	116
15°	1169	1169	1168	1180	1180	329
25°	1062	1064	1074	1093	1097	488
35°	915	923	947	973	981	572
45°	742	761	796	831	846	574
55°	562	586	634	680	696	503
65°	379	404	463	516	535	374
75°	192	228	292	343	357	205
85°	38	67	85	90	86	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1228.8	1228.8	1228.8	1228.8	1228.8
2.5°	1230.5	1228.8	1222.5	1230.0	1229.4
5°	1224.8	1223.6	1218.5	1225.4	1224.8
7.5°	1215.6	1215.0	1211.0	1218.5	1218.5
10°	1204.1	1203.0	1200.1	1208.7	1208.1
12.5°	1188.0	1187.4	1185.7	1196.1	1195.5
15°	1169.1	1169.1	1168.5	1180.0	1180.0
17.5°	1146.1	1146.7	1149.0	1162.2	1162.7
20°	1120.2	1122.5	1127.1	1142.1	1143.2
22.5°	1090.9	1095.5	1101.9	1118.5	1120.2
25°	1061.6	1063.9	1073.7	1093.2	1097.3
27.5°	1026.0	1031.8	1044.4	1064.5	1068.5
30°	989.8	997.9	1014.0	1034.6	1041.0
32.5°	954.2	961.1	980.1	1003.6	1011.1
35°	915.1	923.2	946.7	972.6	980.6
37.5°	872.1	884.7	909.4	939.3	947.9
40°	832.4	843.9	870.9	904.2	913.4
42.5°	787.0	801.4	834.1	868.0	879.5
45°	742.2	760.6	795.7	831.3	845.6
47.5°	700.3	715.2	756.6	796.8	809.4
50°	654.3	671.6	715.2	757.7	771.0
52.5°	608.9	629.6	673.9	718.7	733.0
55°	562.4	586.5	633.7	680.2	695.7
57.5°	517.6	541.7	590.6	640.0	656.1
60°	469.9	495.8	549.8	597.5	617.6
62.5°	424.0	449.8	506.7	558.4	577.4
65°	378.6	404.4	463.0	515.9	535.4
67.5°	331.5	359.6	422.2	473.4	492.3
70°	288.4	315.4	378.6	433.2	453.3
72.5°	239.0	271.2	335.5	389.5	408.5
75°	191.9	228.1	292.4	343.0	356.8
77.5°	148.2	184.4	248.7	286.7	295.3
80°	107.4	144.2	197.6	224.0	230.9
82.5°	69.5	107.4	143.0	160.9	163.2
85°	38.5	66.6	85.0	90.2	86.2
87.5°	13.8	25.3	24.7	20.1	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)