

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: P473762

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473762
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3432.5 lumens
Efficiency: N/A
Efficacy: 124.4 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

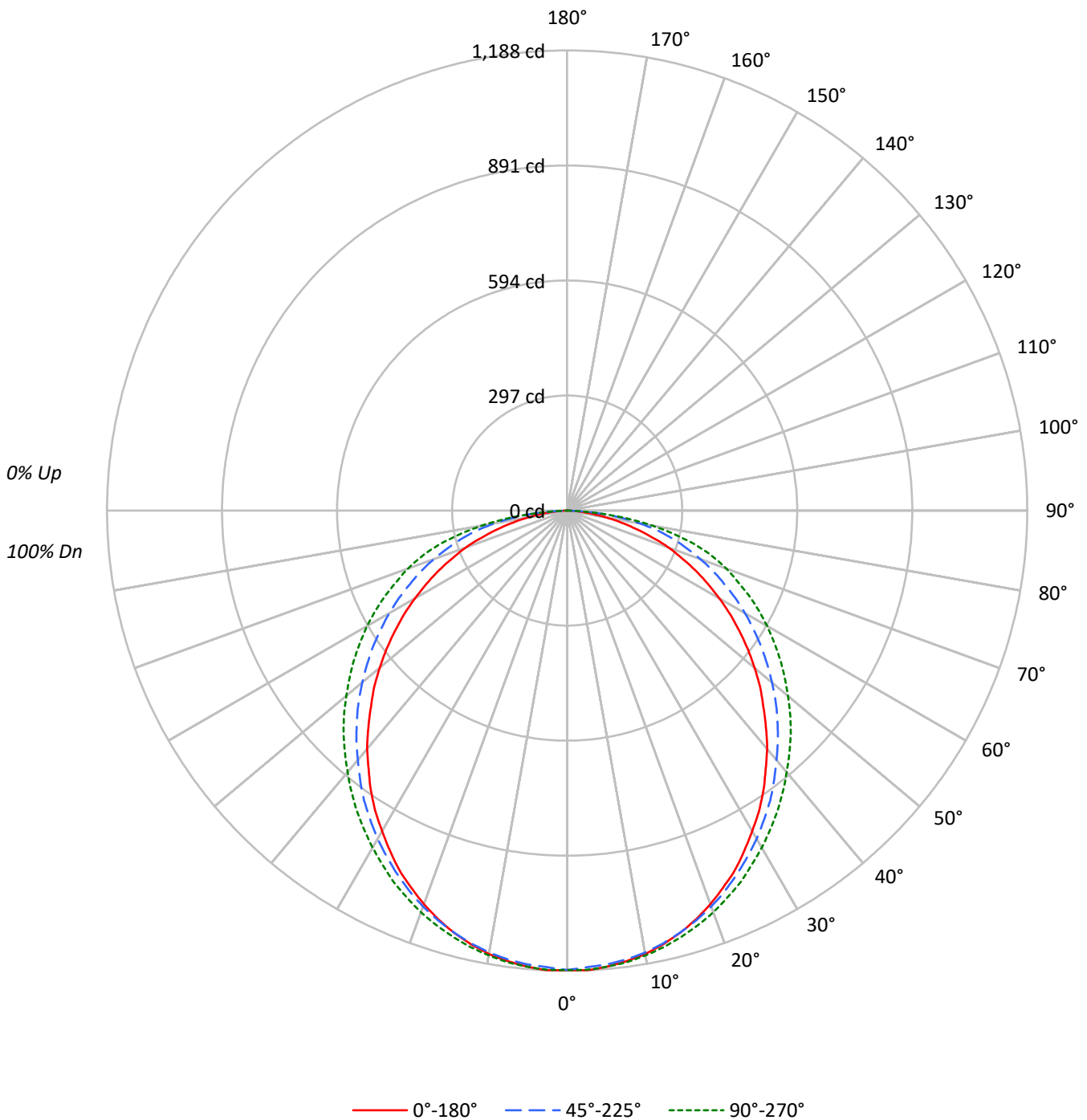
Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P473762

CATALOG NUMBER: 24CZ2-35-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P473762

CATALOG NUMBER: 24CZ2-35-UNV-L830-CD1-U

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°	1596	1596	1596
5°	1597	1588	1597
10°	1588	1583	1593
15°	1572	1571	1587
20°	1548	1558	1580
25°	1521	1539	1572
30°	1484	1521	1561
35°	1451	1501	1555
40°	1411	1477	1549
45°	1363	1461	1553
50°	1322	1445	1558
55°	1274	1435	1575
60°	1221	1428	1604
65°	1163	1423	1645
70°	1095	1437	1721
75°	963	1468	1790
80°	804	1478	1727
85°	574	1267	1284



TEST NUMBER: P473762

CATALOG NUMBER: 24CZ2-35-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.1	3.3
10°-20°	319.4	9.3
20°-30°	479.1	14.0
30°-40°	572.0	16.7
40°-50°	592.5	17.3
50°-60°	545.5	15.9
60°-70°	440.0	12.8
70°-80°	287.5	8.4
80°-90°	84.3	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°	910.6	26.5
0°-40°	1482.7	43.2
0°-60°	2620.7	76.3
0°-90°	3432.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3432.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1186	1186	1186	1186	1186	
5°	1182	1181	1176	1183	1182	112
15°	1128	1128	1128	1139	1139	318
25°	1025	1027	1036	1055	1059	471
35°	883	891	914	939	947	552
45°	716	734	768	802	816	554
55°	543	566	612	657	672	486
65°	365	390	447	498	517	361
75°	185	220	282	331	344	198
85°	37	64	82	87	83	46
90°	0	0	0	0	0	



TEST NUMBER: P473762

CATALOG NUMBER: 24CZ2-35-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1186.1	1186.1	1186.1	1186.1	1186.1
2.5°	1187.8	1186.1	1180.0	1187.2	1186.7
5°	1182.2	1181.1	1176.1	1182.8	1182.2
7.5°	1173.4	1172.8	1168.9	1176.1	1176.1
10°	1162.3	1161.2	1158.4	1166.7	1166.2
12.5°	1146.8	1146.2	1144.5	1154.5	1154.0
15°	1128.5	1128.5	1127.9	1139.0	1139.0
17.5°	1106.3	1106.8	1109.0	1121.8	1122.4
20°	1081.3	1083.5	1088.0	1102.4	1103.5
22.5°	1053.0	1057.5	1063.6	1079.7	1081.3
25°	1024.8	1027.0	1036.4	1055.3	1059.1
27.5°	990.4	995.9	1008.1	1027.5	1031.4
30°	955.4	963.2	978.7	998.7	1004.8
32.5°	921.1	927.7	946.0	968.8	976.0
35°	883.4	891.1	913.9	938.8	946.6
37.5°	841.8	854.0	877.8	906.6	915.0
40°	803.5	814.6	840.7	872.8	881.7
42.5°	759.7	773.6	805.2	837.9	849.0
45°	716.4	734.2	768.0	802.4	816.3
47.5°	676.0	690.4	730.3	769.1	781.3
50°	631.6	648.2	690.4	731.4	744.2
52.5°	587.8	607.8	650.5	693.7	707.6
55°	542.9	566.2	611.6	656.6	671.5
57.5°	499.6	522.9	570.1	617.7	633.3
60°	453.6	478.6	530.7	576.7	596.1
62.5°	409.2	434.2	489.1	539.0	557.3
65°	365.4	390.4	446.9	498.0	516.8
67.5°	320.0	347.1	407.6	456.9	475.2
70°	278.4	304.4	365.4	418.1	437.5
72.5°	230.7	261.7	323.8	376.0	394.3
75°	185.2	220.1	282.3	331.1	344.4
77.5°	143.1	178.0	240.1	276.7	285.0
80°	103.7	139.2	190.8	216.3	222.9
82.5°	67.1	103.7	138.1	155.3	157.5
85°	37.2	64.3	82.1	87.1	83.2
87.5°	13.3	24.4	23.8	19.4	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)