

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: P473962

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473962
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35-S-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

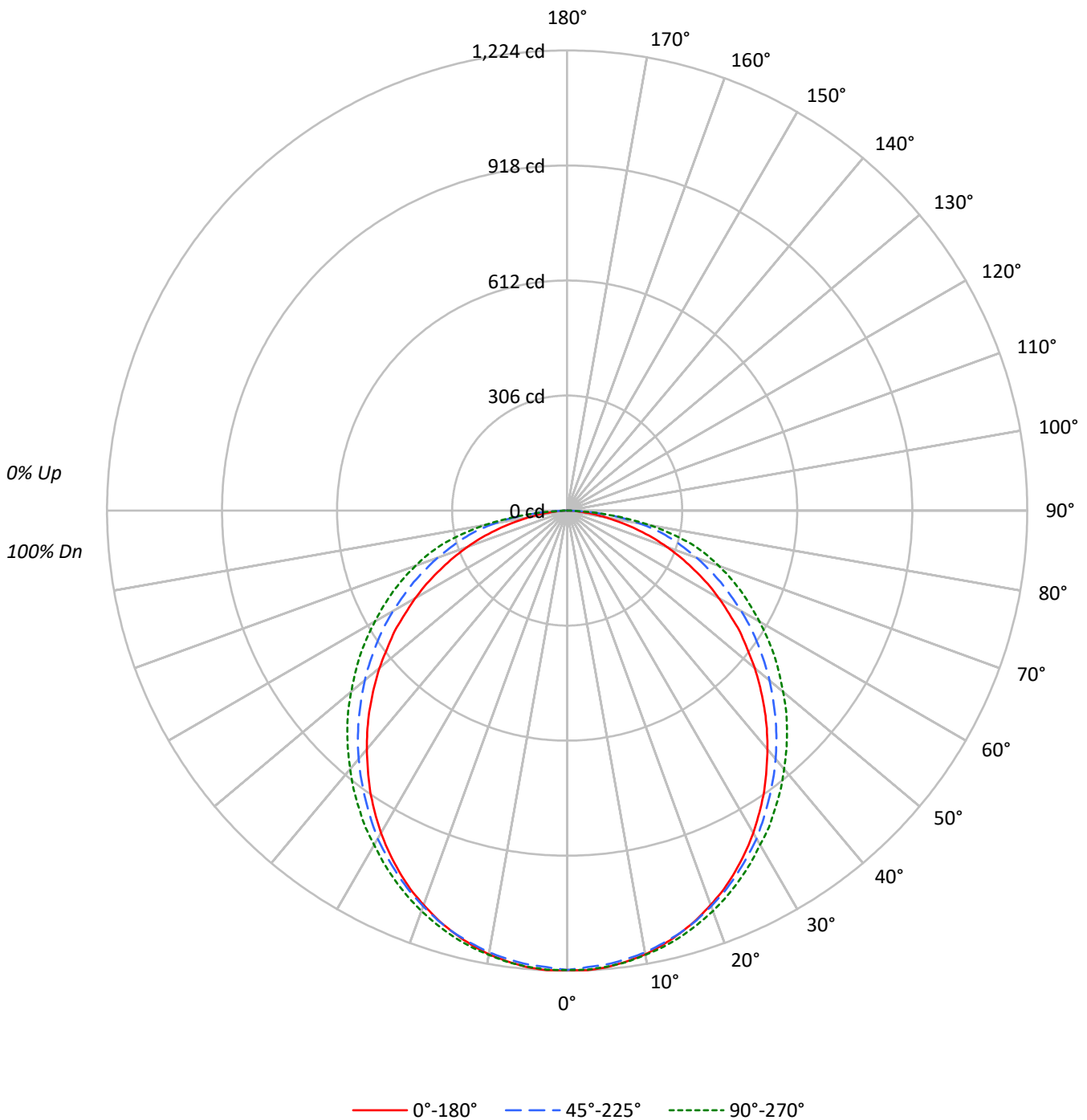
Lumens per Lamp: N/A
Luminaire Lumens: 3501.2 lumens
Efficiency: N/A
Efficacy: 126.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1644	1644	1644
5°	1647	1637	1645
10°	1637	1630	1640
15°	1621	1620	1633
20°	1598	1603	1623
25°	1572	1585	1610
30°	1539	1565	1595
35°	1500	1538	1586
40°	1456	1515	1577
45°	1412	1491	1574
50°	1364	1471	1570
55°	1315	1453	1578
60°	1255	1439	1589
65°	1188	1434	1628
70°	1109	1441	1685
75°	987	1483	1776
80°	807	1515	1733
85°	568	1323	1349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.5	3.3
10°-20°	329.1	9.4
20°-30°	493.3	14.1
30°-40°	587.5	16.8
40°-50°	605.7	17.3
50°-60°	552.7	15.8
60°-70°	442.0	12.6
70°-80°	288.7	8.2
80°-90°	86.7	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°	937.8	26.8
0°-40°	1525.3	43.6
0°-60°	2683.8	76.7
0°-90°	3501.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3501.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1222	1222	1222	1222	1222	
5°	1219	1217	1212	1219	1218	116
15°	1163	1164	1163	1173	1173	328
25°	1059	1060	1068	1084	1085	487
35°	913	920	936	960	966	570
45°	742	755	784	817	827	572
55°	561	577	619	660	673	499
65°	373	398	450	495	511	370
75°	190	221	285	331	342	202
85°	37	66	86	87	87	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1222.1	1222.1	1222.1	1222.1	1222.1
2.5°	1223.8	1222.1	1215.7	1223.2	1222.1
5°	1219.2	1216.9	1211.7	1219.2	1218.0
7.5°	1210.0	1208.8	1203.7	1212.3	1211.1
10°	1198.5	1197.3	1193.3	1201.9	1200.2
12.5°	1182.4	1181.8	1178.9	1189.3	1188.1
15°	1163.4	1164.0	1162.8	1172.6	1172.6
17.5°	1141.6	1141.0	1143.3	1155.4	1154.2
20°	1116.3	1116.8	1119.7	1133.5	1133.5
22.5°	1089.8	1089.2	1095.5	1109.4	1110.5
25°	1058.7	1060.5	1067.9	1083.5	1084.6
27.5°	1025.4	1028.3	1037.5	1055.3	1057.0
30°	990.3	993.8	1007.6	1024.2	1026.5
32.5°	951.8	959.3	971.9	993.2	998.9
35°	913.2	919.6	936.2	959.8	965.6
37.5°	870.7	881.0	900.0	925.9	933.4
40°	828.7	839.1	862.6	889.7	897.7
42.5°	786.1	797.1	824.1	854.6	863.2
45°	741.9	755.1	783.8	816.6	827.0
47.5°	696.4	712.0	743.0	778.7	790.2
50°	651.6	667.1	702.8	739.6	749.9
52.5°	603.3	622.8	660.8	700.5	710.8
55°	560.7	576.8	619.4	660.2	672.9
57.5°	510.7	532.5	578.0	619.4	631.5
60°	466.4	486.5	534.8	576.8	590.6
62.5°	421.5	442.2	490.6	538.3	550.9
65°	373.2	398.5	450.3	494.6	511.3
67.5°	327.2	353.7	406.6	453.7	471.0
70°	281.8	308.8	366.3	414.6	428.4
72.5°	236.9	265.1	324.9	372.1	388.2
75°	189.8	221.4	285.2	331.3	341.6
77.5°	145.5	180.6	245.0	276.0	283.5
80°	104.1	142.6	195.5	218.0	223.7
82.5°	68.4	105.8	146.1	158.2	156.4
85°	36.8	66.1	85.7	87.4	87.4
87.5°	14.4	26.5	27.0	20.7	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)