

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: P272146

Luminaire Tested: **24CZ2-40-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P272146
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40-S-UNV-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

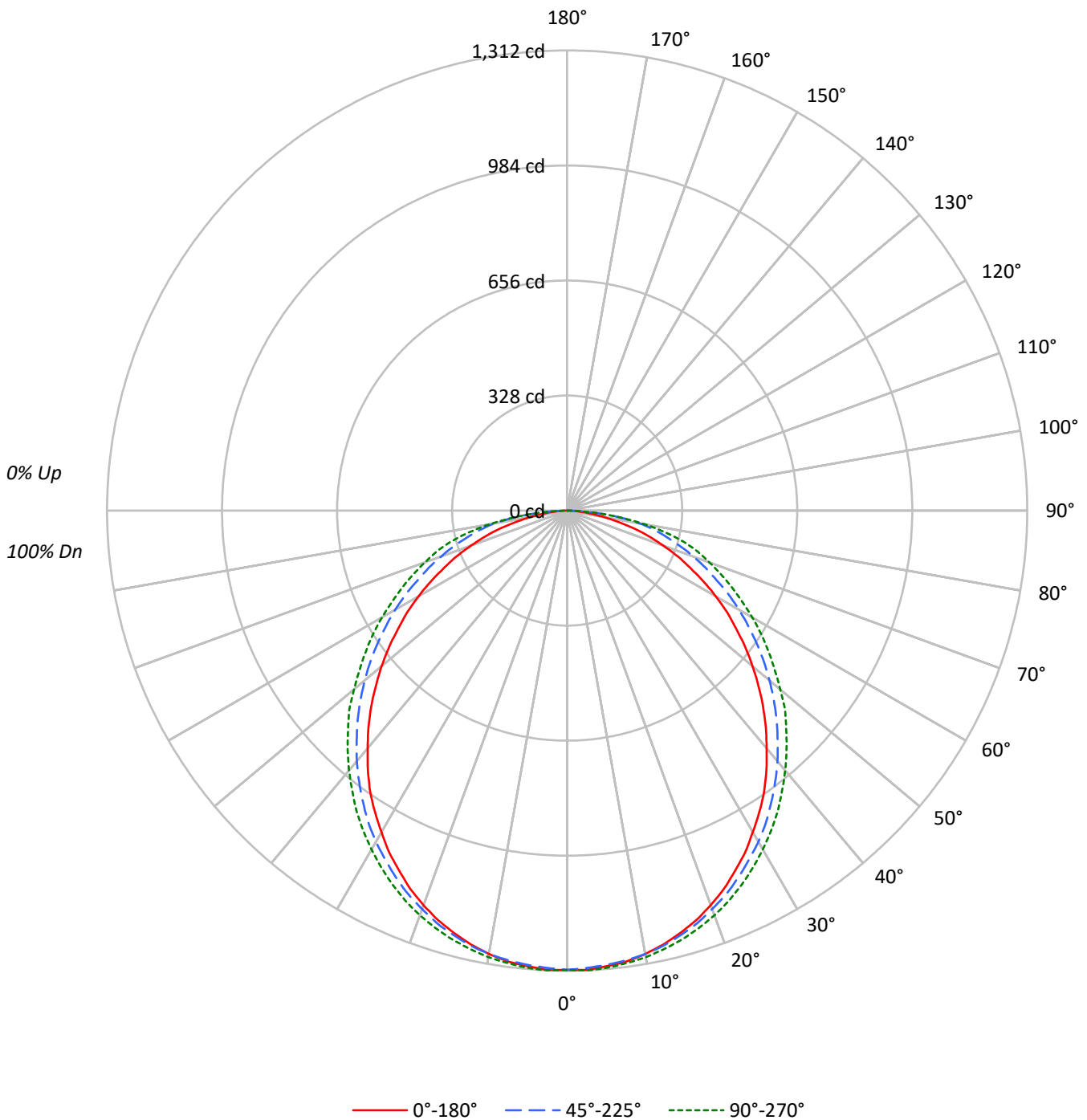
Lumens per Lamp: N/A
Luminaire Lumens: 3728.0 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.2
Input Voltage (V): NR
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	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1762	1762	1762
5°	1761	1756	1767
10°	1754	1754	1767
15°	1737	1745	1763
20°	1714	1731	1758
25°	1682	1714	1747
30°	1645	1694	1733
35°	1609	1667	1719
40°	1554	1639	1699
45°	1503	1607	1681
50°	1445	1576	1661
55°	1380	1547	1644
60°	1316	1523	1641
65°	1233	1497	1651
70°	1141	1505	1696
75°	1022	1533	1791
80°	826	1624	1753
85°	622	1426	1389



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.0	3.3
10°-20°	354.3	9.5
20°-30°	532.6	14.3
30°-40°	634.4	17.0
40°-50°	649.2	17.4
50°-60°	584.5	15.7
60°-70°	459.0	12.3
70°-80°	297.9	8.0
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°	1010.8	27.1
0°-40°	1645.2	44.1
0°-60°	2878.9	77.2
0°-90°	3728.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3728.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1310	1310	1310	1310	1310	
5°	1304	1306	1300	1307	1308	124
15°	1247	1250	1253	1264	1266	352
25°	1133	1143	1154	1174	1177	522
35°	979	991	1015	1040	1047	611
45°	790	809	844	876	883	609
55°	588	615	660	694	701	528
65°	387	417	470	509	519	385
75°	197	234	295	335	345	208
85°	40	75	92	90	90	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1309.7	1309.7	1309.7	1309.7	1309.7
2.5°	1310.9	1310.9	1304.9	1310.9	1312.0
5°	1303.8	1306.1	1300.2	1307.3	1308.5
7.5°	1296.6	1296.6	1293.1	1300.2	1301.4
10°	1283.6	1284.8	1283.6	1291.9	1293.1
12.5°	1267.0	1269.4	1270.6	1278.9	1280.1
15°	1246.9	1250.5	1252.8	1263.5	1265.9
17.5°	1224.4	1228.0	1233.9	1245.7	1248.1
20°	1197.2	1201.9	1209.0	1224.4	1228.0
22.5°	1167.6	1172.3	1184.2	1198.4	1204.3
25°	1133.2	1142.7	1154.5	1173.5	1177.0
27.5°	1098.9	1107.2	1122.6	1142.7	1147.4
30°	1058.6	1071.7	1090.6	1110.7	1115.5
32.5°	1019.6	1032.6	1055.1	1076.4	1082.3
35°	979.3	991.1	1014.8	1039.7	1046.8
37.5°	933.1	948.5	974.6	999.4	1006.5
40°	884.6	903.5	933.1	959.2	967.5
42.5°	838.4	858.5	888.1	916.5	926.0
45°	789.8	808.8	844.3	876.3	883.4
47.5°	740.1	761.4	799.3	831.3	843.1
50°	690.4	712.9	753.1	786.3	793.4
52.5°	640.6	664.3	706.9	742.5	746.0
55°	588.5	614.6	659.6	693.9	701.0
57.5°	541.2	563.7	612.2	647.7	656.0
60°	489.1	513.9	566.0	599.2	609.8
62.5°	439.3	465.4	519.8	553.0	562.5
65°	387.2	416.8	470.1	509.2	518.7
67.5°	342.2	370.6	427.5	465.4	474.8
70°	290.1	322.1	382.5	421.6	431.0
72.5°	245.1	278.3	338.7	376.6	390.8
75°	196.6	234.5	294.9	335.1	344.6
77.5°	149.2	193.0	254.6	285.4	285.4
80°	106.6	152.8	209.6	223.8	226.2
82.5°	69.9	114.9	155.1	153.9	153.9
85°	40.3	74.6	92.4	90.0	90.0
87.5°	15.4	30.8	33.2	33.2	32.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)