

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: P272075

Luminaire Tested: **24CZ2-40-UNV-L940-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: P272075
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40-UNV-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

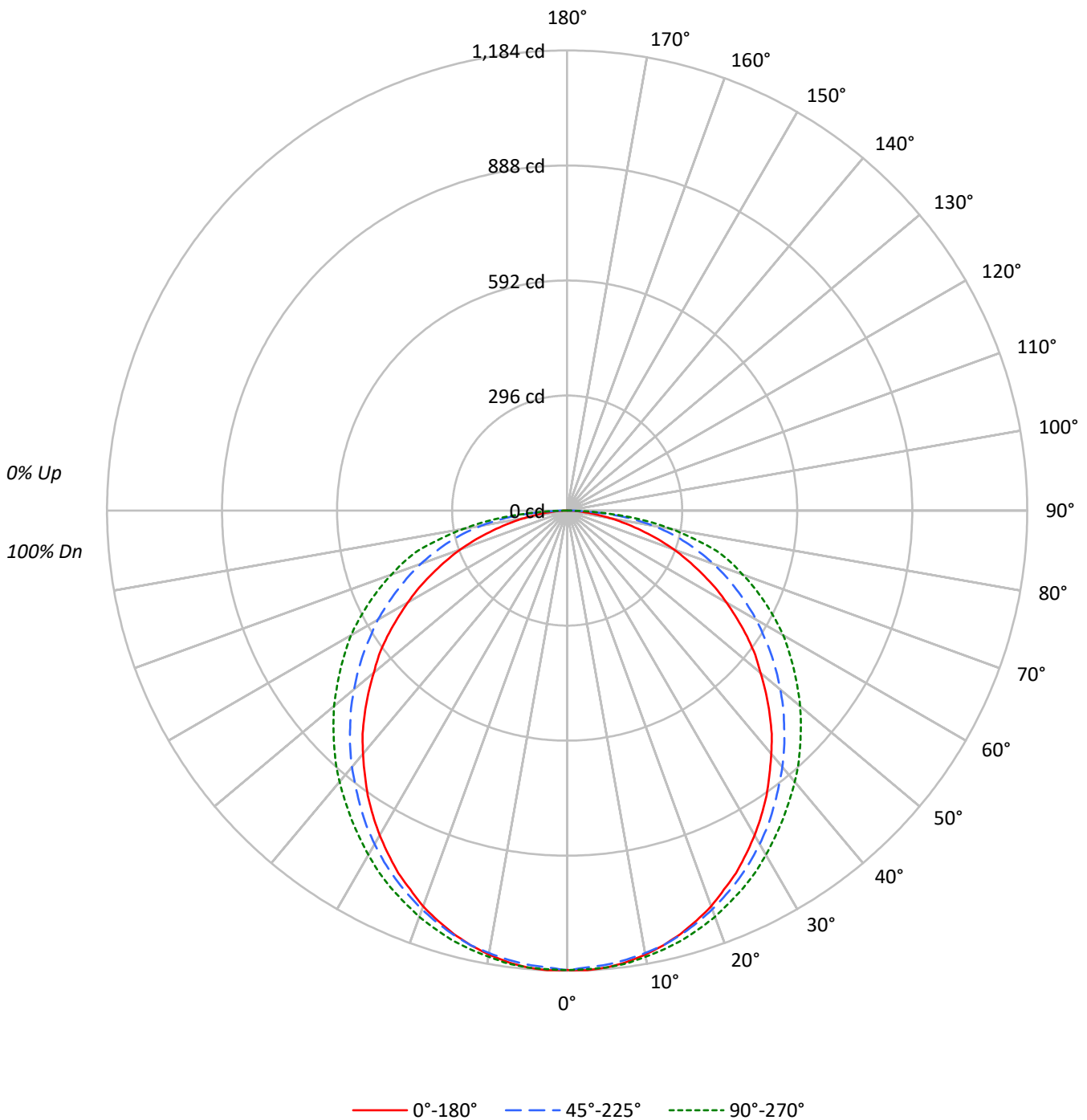
Lumens per Lamp: N/A
Luminaire Lumens: 3585.0 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1591	1591	1591
5°	1594	1584	1594
10°	1584	1580	1592
15°	1571	1574	1594
20°	1552	1563	1592
25°	1527	1552	1591
30°	1499	1539	1589
35°	1469	1524	1590
40°	1435	1513	1600
45°	1401	1503	1614
50°	1359	1499	1638
55°	1325	1501	1671
60°	1274	1514	1728
65°	1216	1530	1791
70°	1151	1577	1890
75°	1026	1645	2065
80°	876	1742	2111
85°	624	1726	2019



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.9	3.1
10°-20°	319.9	8.9
20°-30°	483.2	13.5
30°-40°	582.4	16.2
40°-50°	611.4	17.1
50°-60°	572.0	16.0
60°-70°	472.4	13.2
70°-80°	321.9	9.0
80°-90°	109.8	3.1
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°	915.1	25.5
0°-40°	1497.5	41.8
0°-60°	2680.9	74.8
0°-90°	3585.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3585.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1182	1182	1182	1182	1182	
5°	1180	1179	1173	1180	1180	112
15°	1128	1129	1130	1142	1144	318
25°	1029	1034	1046	1066	1072	473
35°	894	904	928	959	968	559
45°	736	752	790	833	848	568
55°	565	588	640	692	712	504
65°	382	414	480	541	563	379
75°	197	243	316	376	397	211
85°	40	80	112	126	131	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1182.3	1182.3	1182.3	1182.3	1182.3
2.5°	1183.5	1182.3	1176.4	1182.3	1181.1
5°	1179.9	1178.7	1172.8	1179.9	1179.9
7.5°	1171.6	1171.6	1165.6	1174.0	1175.2
10°	1159.7	1159.7	1156.1	1165.6	1165.6
12.5°	1145.4	1145.4	1145.4	1154.9	1156.1
15°	1127.6	1128.8	1130.0	1141.9	1144.2
17.5°	1106.2	1108.6	1112.1	1126.4	1128.8
20°	1083.6	1086.0	1091.9	1108.6	1112.1
22.5°	1055.0	1061.0	1069.3	1088.3	1091.9
25°	1028.9	1033.6	1045.5	1065.7	1071.7
27.5°	996.7	1003.9	1019.3	1040.8	1049.1
30°	964.6	971.8	990.8	1015.8	1022.9
32.5°	930.1	940.8	961.1	987.2	995.6
35°	894.5	904.0	927.8	958.7	968.2
37.5°	855.2	868.3	894.5	927.8	939.7
40°	817.1	831.4	861.2	896.8	911.1
42.5°	779.1	793.4	826.7	867.1	881.4
45°	736.3	751.7	789.8	832.6	848.1
47.5°	693.4	712.5	754.1	799.3	816.0
50°	649.4	670.8	716.0	763.6	782.7
52.5°	610.2	630.4	678.0	729.1	747.0
55°	565.0	587.6	639.9	692.3	712.5
57.5°	518.6	543.6	599.5	656.6	676.8
60°	473.4	500.8	562.6	619.7	642.3
62.5°	429.4	456.7	521.0	580.4	603.0
65°	381.8	413.9	480.5	541.2	562.6
67.5°	336.6	371.1	441.3	500.8	522.2
70°	292.6	325.9	400.8	459.1	480.5
72.5°	245.0	283.1	358.0	418.7	441.3
75°	197.4	242.6	316.4	375.9	397.3
77.5°	153.4	199.8	273.6	322.3	333.0
80°	113.0	160.6	224.8	259.3	272.4
82.5°	72.6	120.1	171.3	196.3	207.0
85°	40.4	79.7	111.8	126.1	130.8
87.5°	16.7	34.5	45.2	51.1	51.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)