

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: P184167

Luminaire Tested: **24FR-40-HP-UNV-L850-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184167
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27148)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24FR-40-HP-UNV-L850-CD1-U
Description: METALUX 2X4 FR TROFFER LED HIGH EFFICIENCY FIXTURE

Light Source: EATON LED 5000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

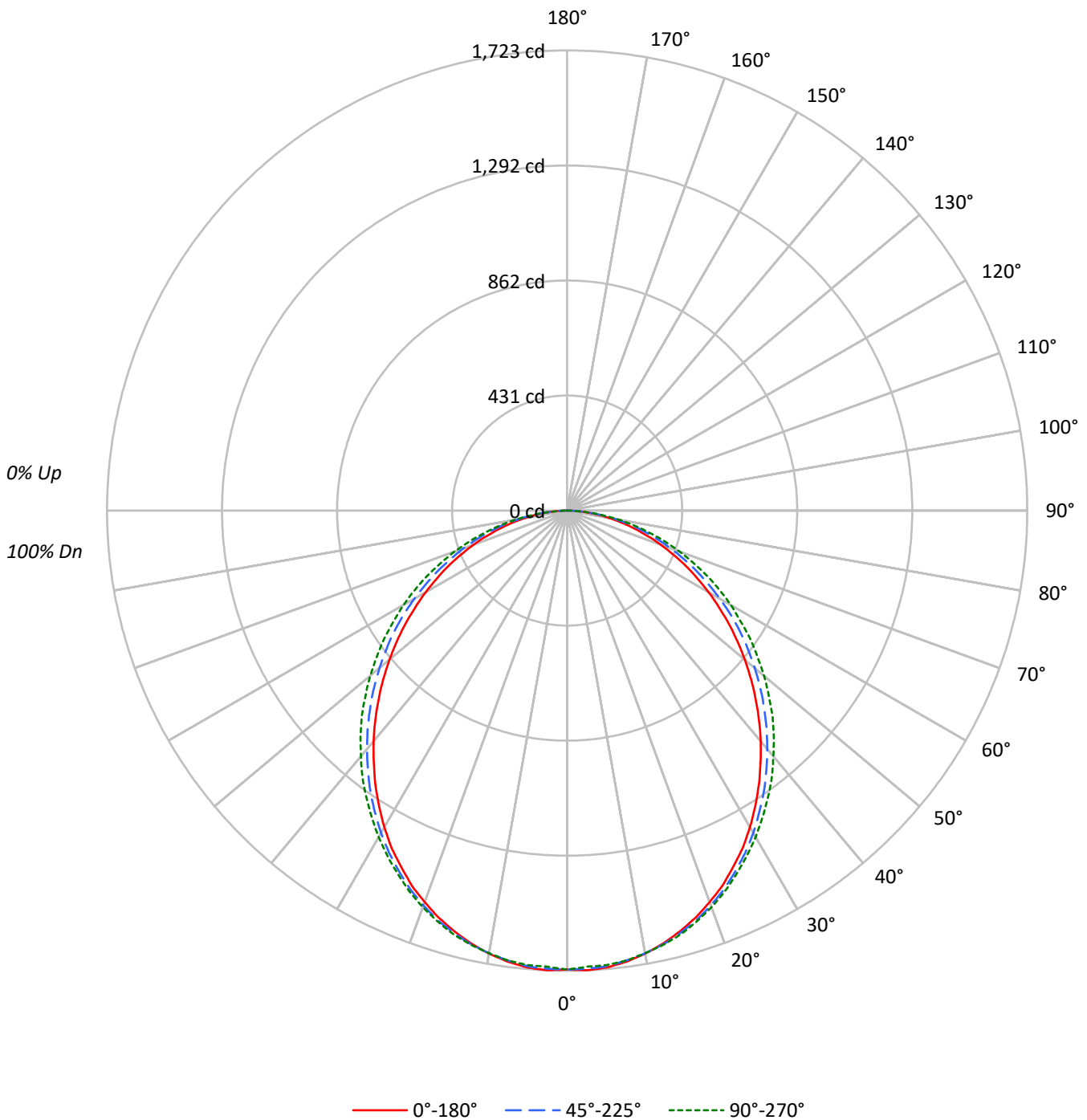
Lumens per Lamp: N/A
Luminaire Lumens: 4543.5 lumens
Efficiency: N/A
Efficacy: 145.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.22 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.3
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	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2312	2312	2312
5°	2319	2313	2307
10°	2301	2299	2299
15°	2272	2280	2288
20°	2234	2253	2263
25°	2184	2212	2228
30°	2127	2166	2193
35°	2056	2110	2153
40°	1980	2048	2110
45°	1900	1984	2069
50°	1817	1919	2016
55°	1734	1856	1963
60°	1646	1778	1905
65°	1561	1698	1839
70°	1463	1620	1760
75°	1355	1533	1656
80°	1240	1423	1515
85°	1121	1212	1212



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.3	3.6
10°-20°	460.9	10.1
20°-30°	684.3	15.1
30°-40°	800.8	17.6
40°-50°	803.7	17.7
50°-60°	704.0	15.5
60°-70°	528.4	11.6
70°-80°	310.5	6.8
80°-90°	88.5	1.9
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°	1307.5	28.8
0°-40°	2108.3	46.4
0°-60°	3616.0	79.6
0°-90°	4543.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4543.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1718	1718	1718	1718	1718	
5°	1717	1705	1712	1710	1708	163
15°	1631	1625	1637	1641	1643	460
25°	1471	1471	1490	1495	1501	678
35°	1252	1256	1284	1301	1311	782
45°	998	1010	1043	1071	1087	770
55°	739	752	791	819	837	661
65°	490	504	533	561	578	485
75°	261	276	295	310	318	277
85°	73	77	78	78	78	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1718.4	1718.4	1718.4	1718.4	1718.4
2.5°	1722.8	1712.5	1716.9	1715.4	1709.5
5°	1716.9	1705.0	1712.5	1709.5	1708.0
7.5°	1703.6	1691.7	1699.1	1699.1	1699.1
10°	1684.3	1675.4	1682.8	1682.8	1682.8
12.5°	1660.6	1653.2	1663.6	1665.1	1665.1
15°	1631.0	1625.1	1636.9	1641.4	1642.8
17.5°	1598.4	1593.9	1608.8	1613.2	1613.2
20°	1559.9	1556.9	1573.2	1577.7	1580.6
22.5°	1519.9	1515.4	1534.7	1537.7	1543.6
25°	1471.0	1471.0	1490.3	1494.7	1500.6
27.5°	1423.6	1422.1	1444.3	1451.7	1457.7
30°	1368.8	1368.8	1394.0	1404.3	1411.7
32.5°	1311.0	1315.5	1339.2	1352.5	1361.4
35°	1251.8	1256.2	1284.3	1300.6	1311.0
37.5°	1189.5	1196.9	1225.1	1245.8	1259.2
40°	1127.3	1137.7	1165.8	1189.5	1201.4
42.5°	1063.6	1072.5	1105.1	1131.8	1145.1
45°	998.4	1010.3	1042.9	1071.0	1087.3
47.5°	933.3	948.1	980.7	1011.8	1023.6
50°	868.1	881.4	917.0	948.1	962.9
52.5°	802.9	816.2	853.3	882.9	897.7
55°	739.2	752.5	791.0	819.2	837.0
57.5°	674.0	688.8	725.9	755.5	768.8
60°	611.8	625.1	660.7	690.3	708.1
62.5°	549.6	564.4	595.5	626.6	642.9
65°	490.3	503.7	533.3	561.4	577.7
67.5°	429.6	445.9	471.1	499.2	511.1
70°	371.8	389.6	411.8	435.5	447.4
72.5°	315.5	331.8	352.6	371.8	382.2
75°	260.7	275.5	294.8	309.6	318.5
77.5°	208.9	225.2	238.5	251.8	256.3
80°	160.0	173.3	183.7	192.6	195.5
82.5°	115.5	124.4	128.9	136.3	137.8
85°	72.6	77.0	78.5	78.5	78.5
87.5°	31.1	32.6	29.6	23.7	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)