

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: P475525

Luminaire Tested: **24GR-LD5-48-F1-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475525
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-48-F1-UNV-L830-CD1-U
Description: GR 2'X4' LED TROFFER w/ F1 LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4685.9 lumens
Efficiency: N/A
Efficacy: 142.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.24 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

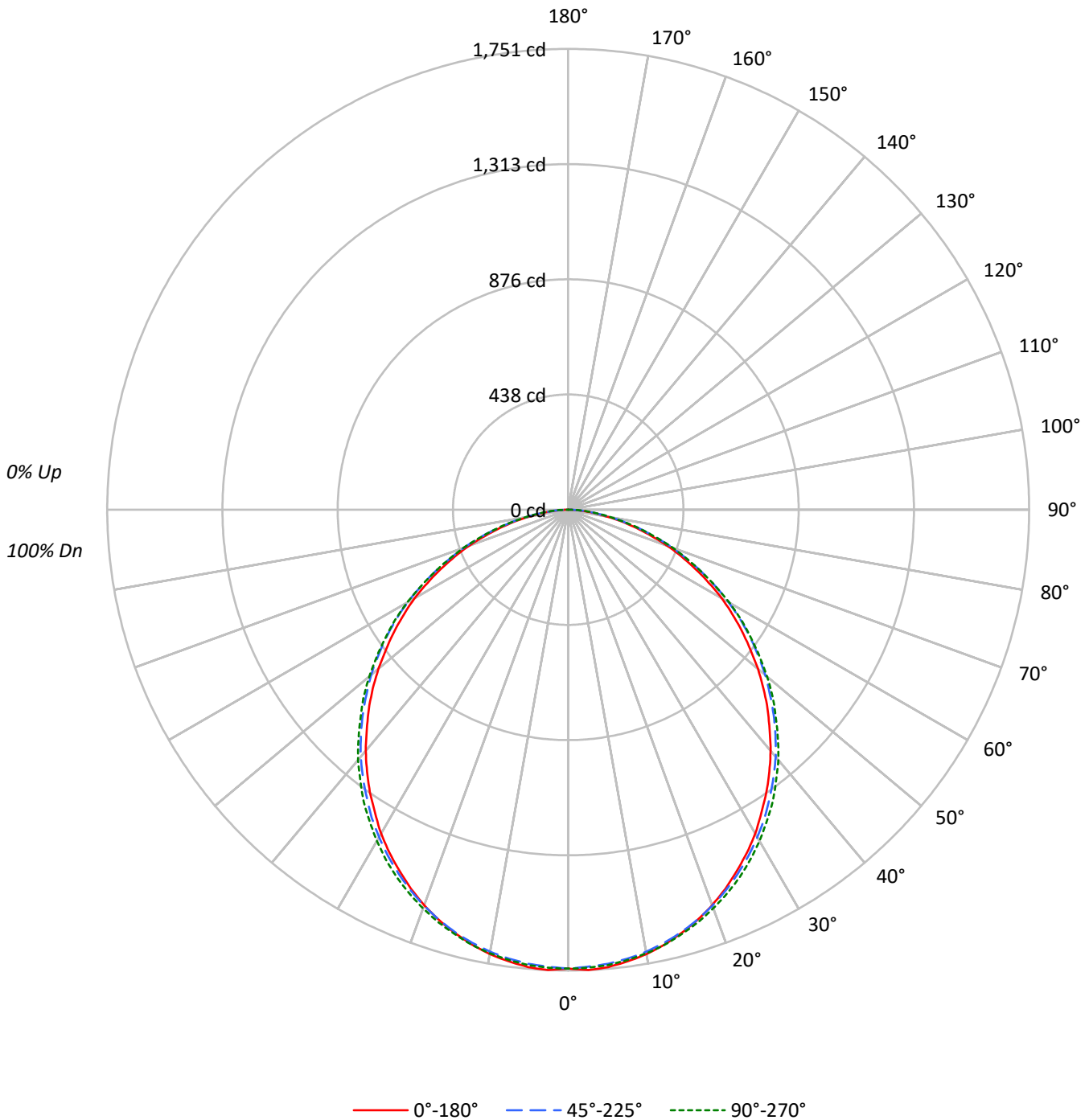
Input Watts (W): 33
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	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	35	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°	2346	2346	2346
5°	2356	2339	2346
10°	2343	2330	2338
15°	2319	2315	2325
20°	2290	2293	2308
25°	2249	2264	2288
30°	2208	2233	2258
35°	2156	2192	2225
40°	2101	2154	2181
45°	2038	2100	2122
50°	1969	2045	2063
55°	1892	1976	1987
60°	1814	1894	1902
65°	1700	1781	1776
70°	1575	1647	1663
75°	1395	1476	1486
80°	1161	1246	1275
85°	880	965	1085



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.8	3.5
10°-20°	469.1	10.0
20°-30°	702.9	15.0
30°-40°	834.0	17.8
40°-50°	847.0	18.1
50°-60°	745.9	15.9
60°-70°	548.1	11.7
70°-80°	298.1	6.4
80°-90°	75.9	1.6
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°	1336.9	28.5
0°-40°	2170.9	46.3
0°-60°	3763.7	80.3
0°-90°	4685.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4685.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1744	1744	1744	1744	1744	
5°	1744	1737	1732	1732	1737	165
15°	1665	1662	1662	1664	1669	469
25°	1515	1517	1525	1534	1541	698
35°	1312	1320	1334	1348	1355	820
45°	1071	1080	1104	1117	1115	826
55°	806	818	842	850	847	721
65°	534	543	559	563	558	529
75°	268	274	284	285	286	285
85°	57	58	62	68	70	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1743.5	1743.5	1743.5	1743.5	1743.5
2.5°	1750.9	1744.0	1738.0	1738.0	1742.2
5°	1744.5	1737.1	1732.0	1732.0	1736.6
7.5°	1731.1	1725.2	1721.0	1721.0	1726.1
10°	1714.6	1708.6	1705.4	1705.9	1711.4
12.5°	1692.5	1687.0	1685.6	1686.6	1693.4
15°	1665.0	1661.7	1661.7	1664.0	1669.1
17.5°	1634.2	1630.9	1633.2	1636.5	1642.9
20°	1599.2	1596.9	1601.1	1606.1	1612.1
22.5°	1559.3	1558.3	1565.2	1572.1	1578.1
25°	1515.1	1517.0	1525.2	1534.0	1540.9
27.5°	1469.6	1471.5	1483.0	1492.2	1499.1
30°	1421.4	1422.3	1437.0	1448.0	1453.1
32.5°	1365.3	1372.7	1388.3	1398.9	1403.5
35°	1312.5	1319.8	1334.5	1347.9	1354.8
37.5°	1255.0	1261.5	1280.8	1295.0	1297.3
40°	1196.2	1202.2	1226.1	1238.0	1241.7
42.5°	1131.9	1143.4	1165.0	1176.9	1179.2
45°	1071.2	1079.9	1103.8	1116.7	1115.3
47.5°	1006.4	1016.1	1039.5	1051.9	1054.2
50°	940.7	951.7	977.0	985.3	985.7
52.5°	871.8	886.0	909.0	920.0	916.3
55°	806.5	818.0	842.4	850.2	847.0
57.5°	739.4	752.3	774.8	778.9	779.4
60°	674.2	684.7	704.0	708.2	706.8
62.5°	602.5	613.0	630.5	634.6	631.4
65°	534.0	542.7	559.3	563.4	557.9
67.5°	466.0	474.7	487.6	494.0	488.0
70°	400.3	407.2	418.7	422.3	422.8
72.5°	330.4	342.8	351.1	350.6	349.3
75°	268.4	273.9	284.0	284.9	285.8
77.5°	209.1	210.5	221.0	223.8	222.0
80°	149.8	154.9	160.8	164.1	164.5
82.5°	98.8	102.5	107.5	113.0	113.0
85°	57.0	58.4	62.5	68.0	70.3
87.5°	23.0	25.3	29.4	33.5	34.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)