

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: P293056

Luminaire Tested: **24GR-LD5-48-F1-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293056
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-12)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-48-F1-UNV-L93050-W2A1-U-3500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4122.0 lumens
Efficiency: N/A
Efficacy: 123.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

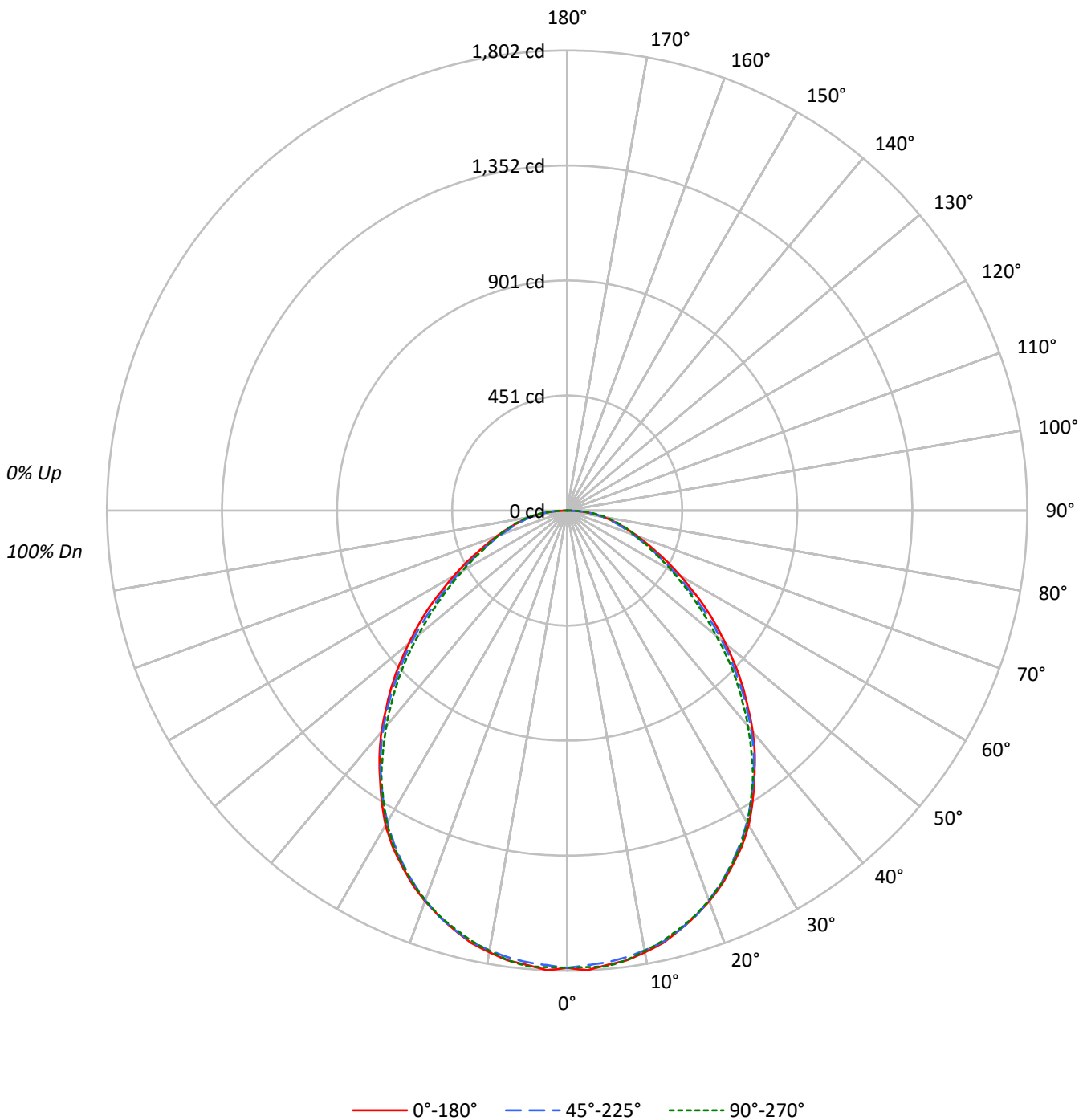
Input Watts (W): 33.452751
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72					72			
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37					37			
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34					34			
9	59	46	38	33	58	46	38	33	44	38	33	43	37	32	42	37	32	31					31			
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2409	2409	2409
5°	2412	2399	2419
10°	2400	2389	2392
15°	2370	2367	2361
20°	2330	2325	2325
25°	2276	2263	2268
30°	2210	2187	2194
35°	2099	2089	2084
40°	1988	1970	1935
45°	1847	1815	1780
50°	1692	1655	1593
55°	1546	1476	1426
60°	1377	1311	1277
65°	1240	1175	1159
70°	1151	1080	1124
75°	1101	1052	1140
80°	1100	1100	1219
85°	1142	1155	1286



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.1	4.1
10°-20°	478.5	11.6
20°-30°	702.3	17.0
30°-40°	794.0	19.3
40°-50°	733.8	17.8
50°-60°	565.4	13.7
60°-70°	374.4	9.1
70°-80°	222.9	5.4
80°-90°	81.6	2.0
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°	1349.9	32.7
0°-40°	2143.9	52.0
0°-60°	3443.1	83.5
0°-90°	4122.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4122.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1790	1790	1790	1790	1790	
5°	1786	1786	1776	1777	1791	170
15°	1701	1698	1700	1699	1695	479
25°	1533	1529	1524	1523	1528	706
35°	1278	1276	1272	1266	1268	800
45°	971	964	954	937	935	748
55°	659	645	629	612	608	588
65°	389	383	369	366	364	390
75°	212	207	202	212	219	226
85°	74	70	75	82	83	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1790.5	1790.5	1790.5	1790.5	1790.5
2.5°	1801.6	1792.2	1782.0	1782.0	1789.6
5°	1786.2	1786.2	1776.0	1776.9	1791.3
7.5°	1776.9	1771.8	1765.0	1765.0	1776.0
10°	1756.5	1752.2	1748.8	1747.1	1750.5
12.5°	1734.4	1727.6	1730.1	1727.6	1726.7
15°	1701.2	1697.8	1699.5	1698.7	1695.3
17.5°	1665.5	1663.8	1667.2	1661.3	1663.8
20°	1627.3	1622.2	1623.9	1620.5	1623.9
22.5°	1583.9	1580.5	1576.3	1572.0	1578.8
25°	1532.9	1528.6	1524.4	1522.7	1527.8
27.5°	1481.9	1475.1	1469.1	1467.4	1475.1
30°	1422.4	1414.7	1407.9	1406.2	1412.2
32.5°	1351.8	1350.1	1341.6	1338.2	1340.7
35°	1277.8	1276.1	1271.9	1265.9	1268.5
37.5°	1207.3	1206.4	1200.5	1190.3	1183.5
40°	1131.6	1125.7	1121.4	1106.9	1101.8
42.5°	1048.3	1046.6	1038.9	1022.8	1016.8
45°	970.9	964.1	953.9	936.9	935.2
47.5°	891.0	881.6	872.3	851.0	850.2
50°	808.5	801.7	790.7	769.4	760.9
52.5°	732.0	722.7	707.4	687.0	682.7
55°	658.9	645.3	629.1	612.1	607.9
57.5°	580.7	574.7	555.2	541.6	536.5
60°	511.8	506.7	487.2	474.4	474.4
62.5°	449.8	442.1	425.1	416.6	416.6
65°	389.4	383.4	369.0	365.6	363.9
67.5°	337.5	329.9	319.7	318.8	323.1
70°	292.5	283.1	274.6	283.1	285.7
72.5°	250.0	244.0	236.4	247.4	252.5
75°	211.7	206.6	202.3	211.7	219.3
77.5°	176.8	171.7	171.7	181.9	188.7
80°	142.0	138.6	142.0	150.5	157.3
82.5°	108.8	106.3	110.5	119.0	123.3
85°	74.0	69.7	74.8	82.5	83.3
87.5°	34.9	34.0	37.4	42.5	41.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)