

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: P291863

Luminaire Tested: **22GR-LD5-43-F1-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291863
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-43-F1-UNV-L93050-W2A1-U-4000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3997.0 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.24
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

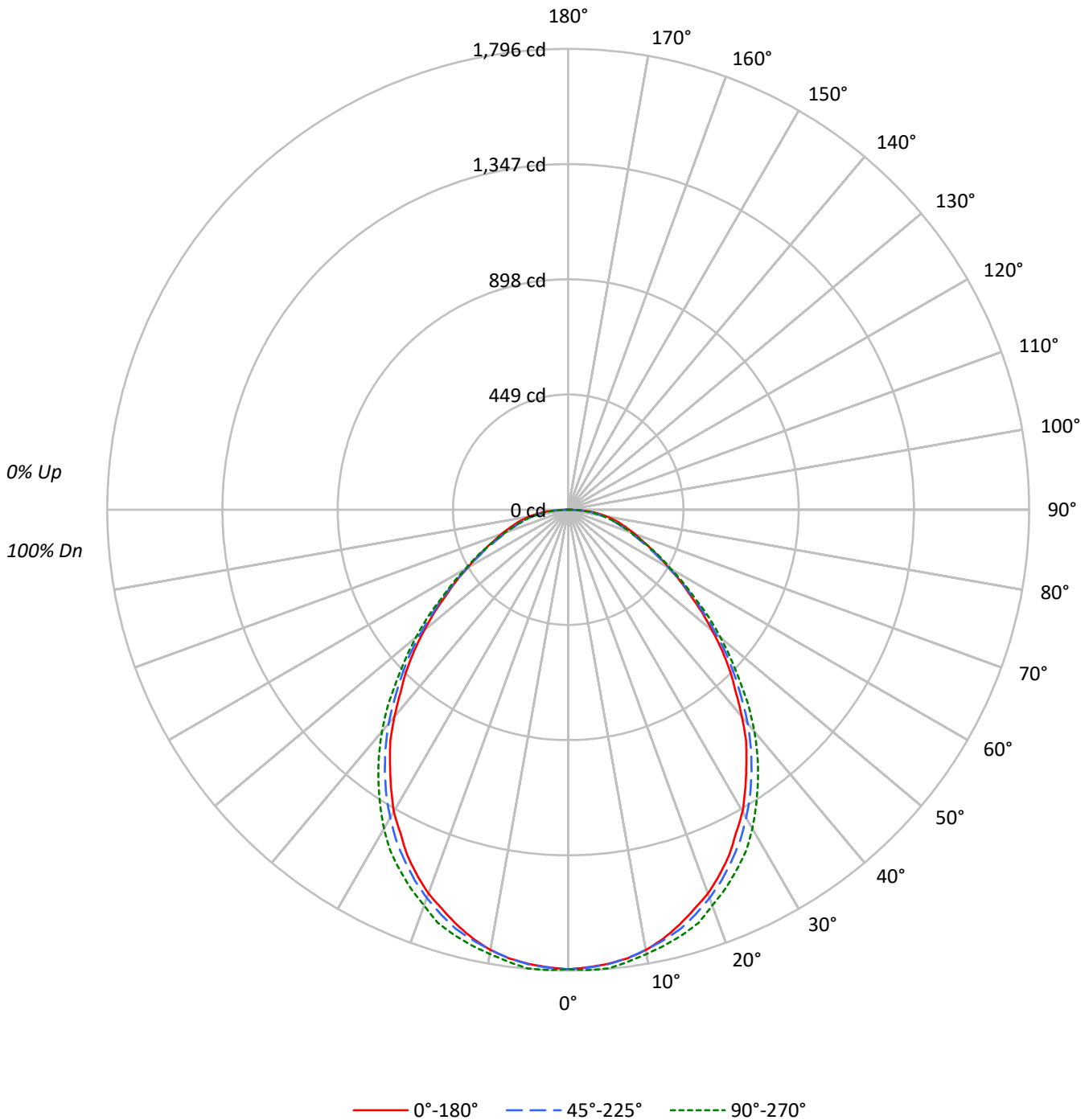
Input Watts (W): 36.084
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55					55			
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48					48			
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43					43			
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38					38			
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34					34			
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4820	4820	4820
5°	4799	4804	4848
10°	4761	4759	4804
15°	4665	4711	4780
20°	4559	4611	4701
25°	4408	4479	4604
30°	4222	4308	4459
35°	3975	4090	4234
40°	3699	3825	3964
45°	3396	3494	3602
50°	3063	3140	3240
55°	2718	2783	2830
60°	2436	2441	2490
65°	2245	2169	2245
70°	2167	2008	2066
75°	2205	1966	2005
80°	2376	2063	2063
85°	2637	2183	2155



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.0	4.2
10°-20°	476.6	11.9
20°-30°	695.5	17.4
30°-40°	778.7	19.5
40°-50°	708.7	17.7
50°-60°	533.4	13.3
60°-70°	348.1	8.7
70°-80°	208.8	5.2
80°-90°	78.3	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°	1341.0	33.6
0°-40°	2119.7	53.0
0°-60°	3361.9	84.1
0°-90°	3997.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3997.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1791	1791	1791	1791	1791	
5°	1776	1774	1778	1785	1795	169
15°	1674	1676	1691	1705	1716	472
25°	1484	1489	1508	1536	1551	682
35°	1210	1221	1245	1274	1289	756
45°	892	902	918	937	946	687
55°	579	588	593	601	603	524
65°	352	349	341	346	352	353
75°	212	205	189	190	193	225
85°	85	83	71	67	70	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1791.1	1791.1	1791.1	1791.1	1791.1
2.5°	1784.7	1783.8	1786.6	1791.1	1795.7
5°	1776.5	1773.7	1778.3	1784.7	1794.8
7.5°	1763.6	1763.6	1763.6	1775.5	1777.4
10°	1742.5	1744.3	1741.6	1753.5	1758.1
12.5°	1712.2	1713.1	1718.6	1730.5	1738.8
15°	1674.5	1676.4	1691.1	1704.8	1715.9
17.5°	1632.3	1638.7	1652.5	1674.5	1688.3
20°	1591.9	1599.3	1610.3	1634.2	1641.5
22.5°	1540.5	1548.8	1562.5	1583.7	1599.3
25°	1484.5	1489.1	1508.4	1535.9	1550.6
27.5°	1417.5	1427.6	1451.5	1479.9	1500.1
30°	1358.7	1364.2	1386.3	1419.3	1434.9
32.5°	1284.4	1300.9	1319.3	1348.6	1363.3
35°	1210.0	1221.0	1244.9	1274.3	1289.0
37.5°	1138.4	1144.8	1168.7	1193.5	1211.8
40°	1053.0	1065.0	1088.8	1115.4	1128.3
42.5°	967.6	985.1	1000.7	1027.3	1041.1
45°	892.4	901.5	918.1	937.3	946.5
47.5°	813.4	818.0	837.3	849.2	859.3
50°	731.7	737.2	750.1	762.0	773.9
52.5°	656.4	661.0	669.3	680.3	692.2
55°	579.3	587.6	593.1	601.3	603.2
57.5°	516.9	516.0	519.6	526.1	532.5
60°	452.6	454.4	453.5	459.9	462.7
62.5°	399.4	398.4	392.9	402.1	409.5
65°	352.5	348.9	340.6	346.1	352.5
67.5°	309.4	307.6	293.8	298.4	303.9
70°	275.4	269.0	255.2	258.0	262.6
72.5°	242.4	235.0	221.3	222.2	224.9
75°	212.1	204.7	189.1	190.0	192.8
77.5°	183.6	174.4	160.7	158.8	160.7
80°	153.3	145.1	133.1	127.6	133.1
82.5°	122.1	117.5	103.7	98.2	100.1
85°	85.4	82.6	70.7	67.0	69.8
87.5°	39.5	42.2	35.8	33.1	34.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)