

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: P291853

Luminaire Tested: **22GR-LD5-36-F1-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291853
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-LD5-36-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: 3321.0 lumens
Efficiency: N/A
Efficacy: 115.2 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

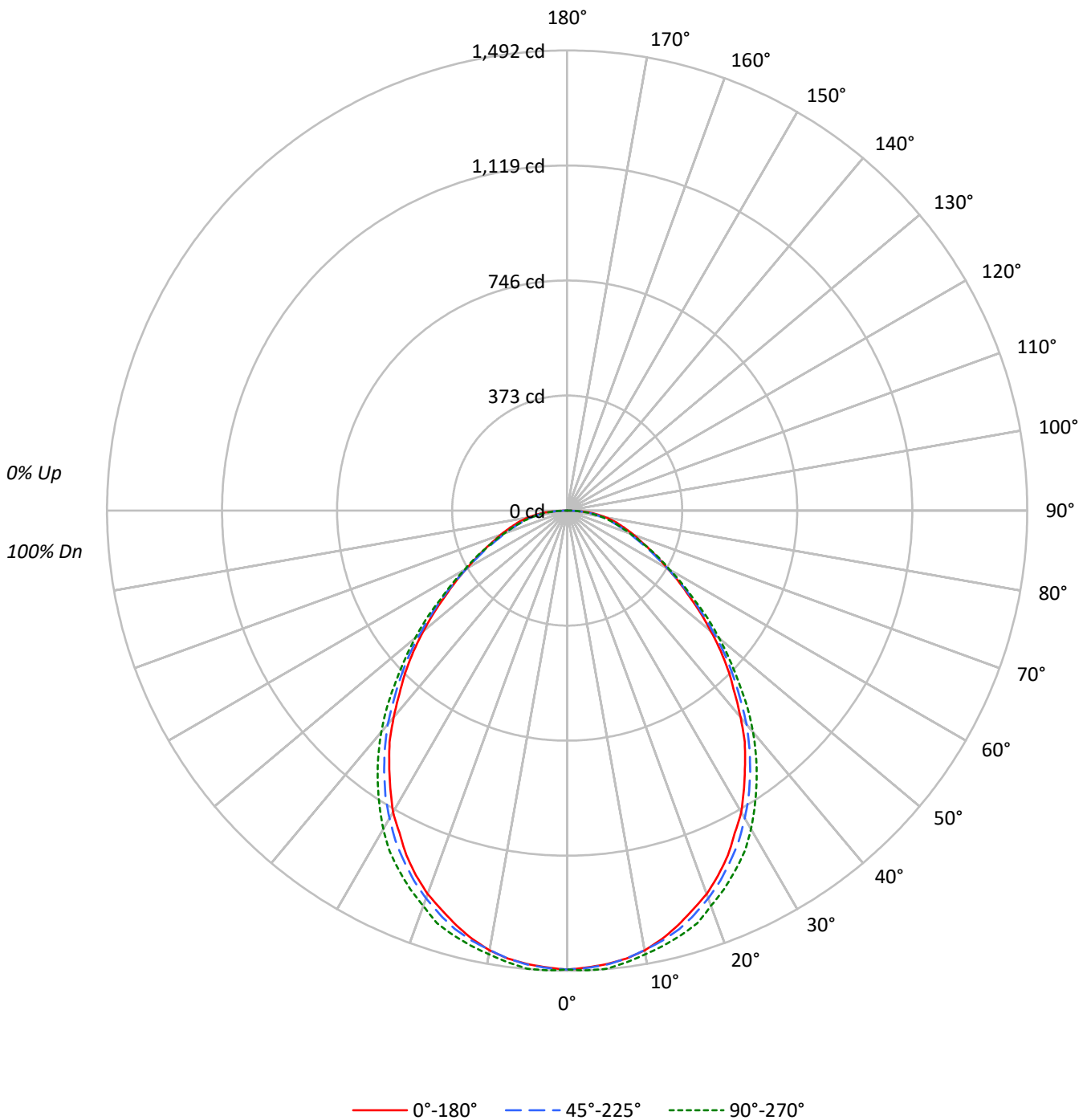
Input Watts (W): 28.83
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4005	4005	4005
5°	3987	3991	4028
10°	3956	3954	3992
15°	3876	3914	3972
20°	3788	3831	3906
25°	3662	3721	3825
30°	3508	3579	3704
35°	3303	3398	3518
40°	3073	3178	3293
45°	2821	2903	2993
50°	2545	2609	2692
55°	2258	2312	2351
60°	2024	2028	2069
65°	1865	1802	1865
70°	1800	1669	1717
75°	1832	1633	1666
80°	1974	1714	1714
85°	2189	1812	1791



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.4	4.2
10°-20°	396.0	11.9
20°-30°	577.9	17.4
30°-40°	647.0	19.5
40°-50°	588.8	17.7
50°-60°	443.2	13.3
60°-70°	289.2	8.7
70°-80°	173.5	5.2
80°-90°	65.0	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°	1114.2	33.6
0°-40°	1761.2	53.0
0°-60°	2793.3	84.1
0°-90°	3321.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3321.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1488	1488	1488	1488	1488	
5°	1476	1474	1478	1483	1491	140
15°	1391	1393	1405	1416	1426	392
25°	1233	1237	1253	1276	1288	566
35°	1005	1014	1034	1059	1071	628
45°	741	749	763	779	786	571
55°	481	488	493	500	501	435
65°	293	290	283	288	293	293
75°	176	170	157	158	160	187
85°	71	69	59	56	58	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1488.2	1488.2	1488.2	1488.2	1488.2
2.5°	1482.9	1482.1	1484.4	1488.2	1492.0
5°	1476.0	1473.7	1477.5	1482.9	1491.3
7.5°	1465.3	1465.3	1465.3	1475.2	1476.8
10°	1447.8	1449.3	1447.0	1456.9	1460.8
12.5°	1422.6	1423.4	1428.0	1437.9	1444.7
15°	1391.3	1392.9	1405.1	1416.5	1425.7
17.5°	1356.2	1361.6	1373.0	1391.3	1402.8
20°	1322.7	1328.8	1337.9	1357.8	1363.9
22.5°	1280.0	1286.8	1298.3	1315.8	1328.8
25°	1233.4	1237.3	1253.3	1276.2	1288.4
27.5°	1177.8	1186.1	1206.0	1229.6	1246.4
30°	1128.9	1133.5	1151.8	1179.3	1192.2
32.5°	1067.1	1080.9	1096.1	1120.5	1132.7
35°	1005.4	1014.5	1034.3	1058.8	1071.0
37.5°	945.9	951.2	971.0	991.6	1006.9
40°	874.9	884.8	904.7	926.8	937.5
42.5°	804.0	818.5	831.4	853.6	865.0
45°	741.4	749.1	762.8	778.8	786.4
47.5°	675.8	679.6	695.7	705.6	714.0
50°	607.9	612.5	623.2	633.1	643.0
52.5°	545.4	549.2	556.1	565.2	575.1
55°	481.3	488.2	492.8	499.6	501.2
57.5°	429.5	428.7	431.7	437.1	442.4
60°	376.1	377.6	376.8	382.2	384.4
62.5°	331.8	331.1	326.5	334.1	340.2
65°	292.9	289.9	283.0	287.6	292.9
67.5°	257.1	255.5	244.1	247.9	252.5
70°	228.8	223.5	212.1	214.3	218.2
72.5°	201.4	195.3	183.8	184.6	186.9
75°	176.2	170.1	157.1	157.9	160.2
77.5°	152.6	144.9	133.5	132.0	133.5
80°	127.4	120.5	110.6	106.0	110.6
82.5°	101.5	97.6	86.2	81.6	83.1
85°	70.9	68.7	58.7	55.7	58.0
87.5°	32.8	35.1	29.7	27.5	28.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)