

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: P291888

Luminaire Tested: **22GR-LD5-28-F1-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291888
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-LD5-28-F1-UNV-L92765-W2A1-U-4500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2644.0 lumens
Efficiency: N/A
Efficacy: 118.0 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

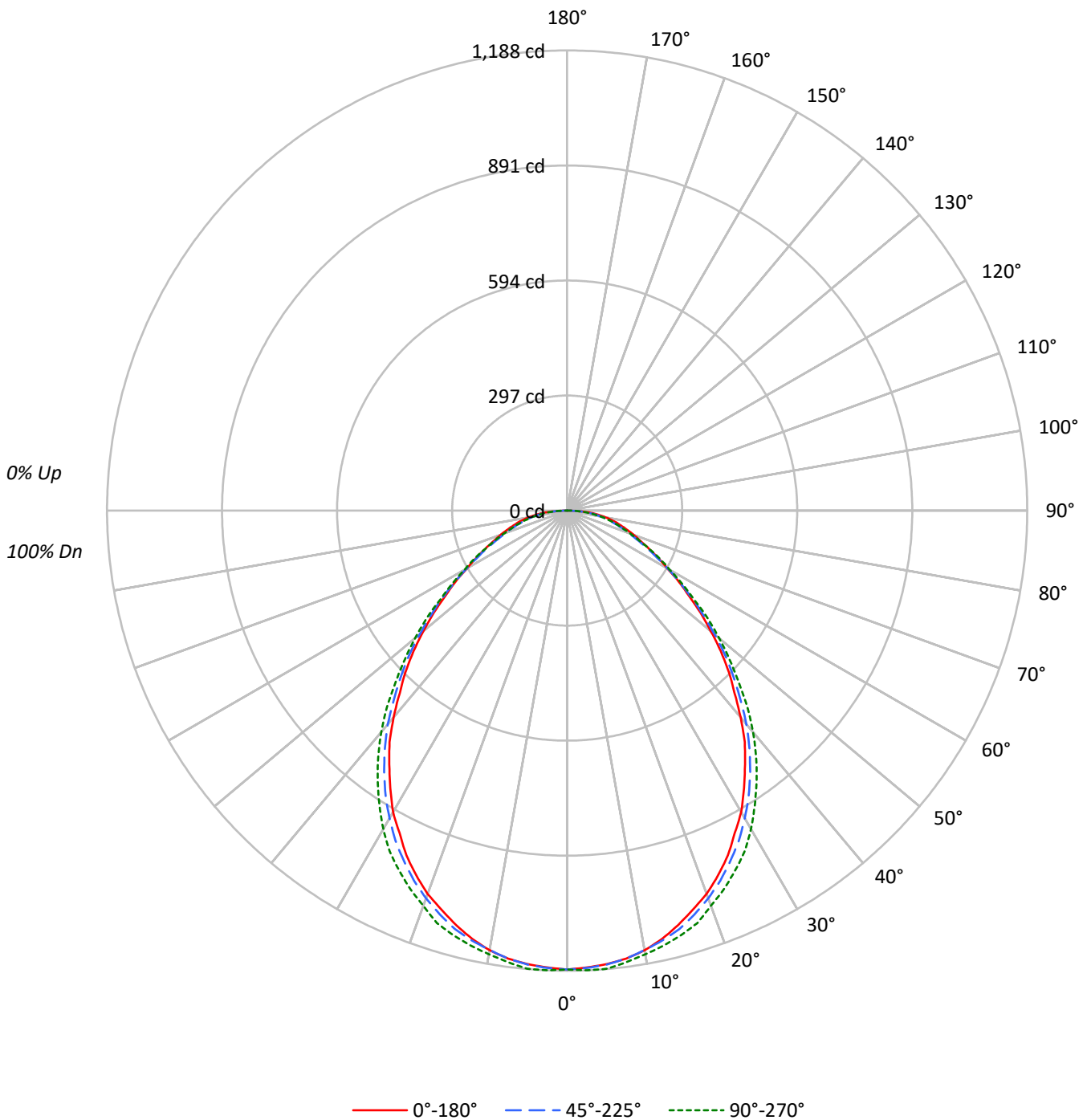
Input Watts (W): 22.413
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P291888

CATALOG NUMBER: 22GR-LD5-28-F1-UNV-L92765-W2A1-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P291888

CATALOG NUMBER: 22GR-LD5-28-F1-UNV-L92765-W2A1-U-4500K

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°	3188	3188	3188
5°	3174	3177	3207
10°	3149	3148	3178
15°	3086	3116	3162
20°	3016	3050	3109
25°	2916	2963	3045
30°	2793	2849	2949
35°	2629	2705	2801
40°	2447	2530	2622
45°	2246	2311	2383
50°	2026	2077	2143
55°	1798	1841	1872
60°	1611	1615	1647
65°	1485	1435	1485
70°	1434	1328	1367
75°	1459	1301	1326
80°	1571	1365	1365
85°	1744	1445	1426



TEST NUMBER: P291888

CATALOG NUMBER: 22GR-LD5-28-F1-UNV-L92765-W2A1-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.8	4.2
10°-20°	315.2	11.9
20°-30°	460.1	17.4
30°-40°	515.1	19.5
40°-50°	468.8	17.7
50°-60°	352.9	13.3
60°-70°	230.3	8.7
70°-80°	138.1	5.2
80°-90°	51.8	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°	887.1	33.6
0°-40°	1402.2	53.0
0°-60°	2223.9	84.1
0°-90°	2644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2644.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1185	1185	1185	1185	1185	
5°	1175	1173	1176	1181	1187	111
15°	1108	1109	1119	1128	1135	312
25°	982	985	998	1016	1026	451
35°	800	808	824	843	853	500
45°	590	596	607	620	626	454
55°	383	389	392	398	399	346
65°	233	231	225	229	233	233
75°	140	135	125	126	128	149
85°	56	55	47	44	46	58
90°	0	0	0	0	0	



TEST NUMBER: P291888

CATALOG NUMBER: 22GR-LD5-28-F1-UNV-L92765-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1184.8	1184.8	1184.8	1184.8	<i>1184.8</i>
2.5°	<i>1180.6</i>	<i>1180.0</i>	<i>1181.8</i>	<i>1184.8</i>	<i>1187.9</i>
5°	1175.1	1173.3	1176.3	1180.6	<i>1187.3</i>
7.5°	1166.6	1166.6	1166.6	1174.5	<i>1175.7</i>
10°	1152.6	1153.9	1152.0	1159.9	<i>1163.0</i>
12.5°	1132.6	1133.2	1136.9	1144.8	<i>1150.2</i>
15°	1107.7	1108.9	1118.6	1127.7	<i>1135.0</i>
17.5°	1079.8	1084.0	1093.1	1107.7	<i>1116.8</i>
20°	1053.1	1057.9	1065.2	1081.0	<i>1085.8</i>
22.5°	1019.0	1024.5	1033.6	1047.6	<i>1057.9</i>
25°	982.0	985.0	997.8	1016.0	<i>1025.7</i>
27.5°	937.7	944.3	960.1	979.0	<i>992.3</i>
30°	898.8	902.4	917.0	938.9	<i>949.2</i>
32.5°	849.6	860.5	872.7	892.1	<i>901.8</i>
35°	800.4	807.7	823.5	842.9	<i>852.6</i>
37.5°	753.0	757.3	773.1	789.5	<i>801.6</i>
40°	696.6	704.5	720.3	737.9	<i>746.4</i>
42.5°	640.1	651.6	662.0	679.6	<i>688.7</i>
45°	590.3	596.4	607.3	620.0	<i>626.1</i>
47.5°	538.1	541.1	553.9	561.7	<i>568.4</i>
50°	484.0	487.7	496.2	504.1	<i>512.0</i>
52.5°	434.2	437.3	442.7	450.0	<i>457.9</i>
55°	383.2	388.7	392.3	397.8	<i>399.0</i>
57.5°	341.9	341.3	343.7	348.0	<i>352.2</i>
60°	299.4	300.6	300.0	304.3	<i>306.1</i>
62.5°	264.2	263.6	259.9	266.0	<i>270.9</i>
65°	233.2	230.8	225.3	229.0	<i>233.2</i>
67.5°	204.7	203.4	194.3	197.4	<i>201.0</i>
70°	182.2	177.9	168.8	170.7	<i>173.7</i>
72.5°	160.3	155.5	146.4	147.0	<i>148.8</i>
75°	140.3	135.4	125.1	125.7	<i>127.5</i>
77.5°	121.5	115.4	106.3	105.1	<i>106.3</i>
80°	101.4	96.0	88.1	84.4	<i>88.1</i>
82.5°	80.8	77.7	68.6	65.0	<i>66.2</i>
85°	56.5	54.7	46.8	44.3	<i>46.2</i>
87.5°	26.1	27.9	23.7	21.9	<i>22.5</i>
90°	0.0	0.0	0.0	0.0	<i>0.0</i>

(END OF REPORT)