

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: P291905

Luminaire Tested: **22GR-LD5-36-F1-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291905  
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-L92765-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: 3195.0 lumens  
Efficiency: N/A  
Efficacy: 112.3 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

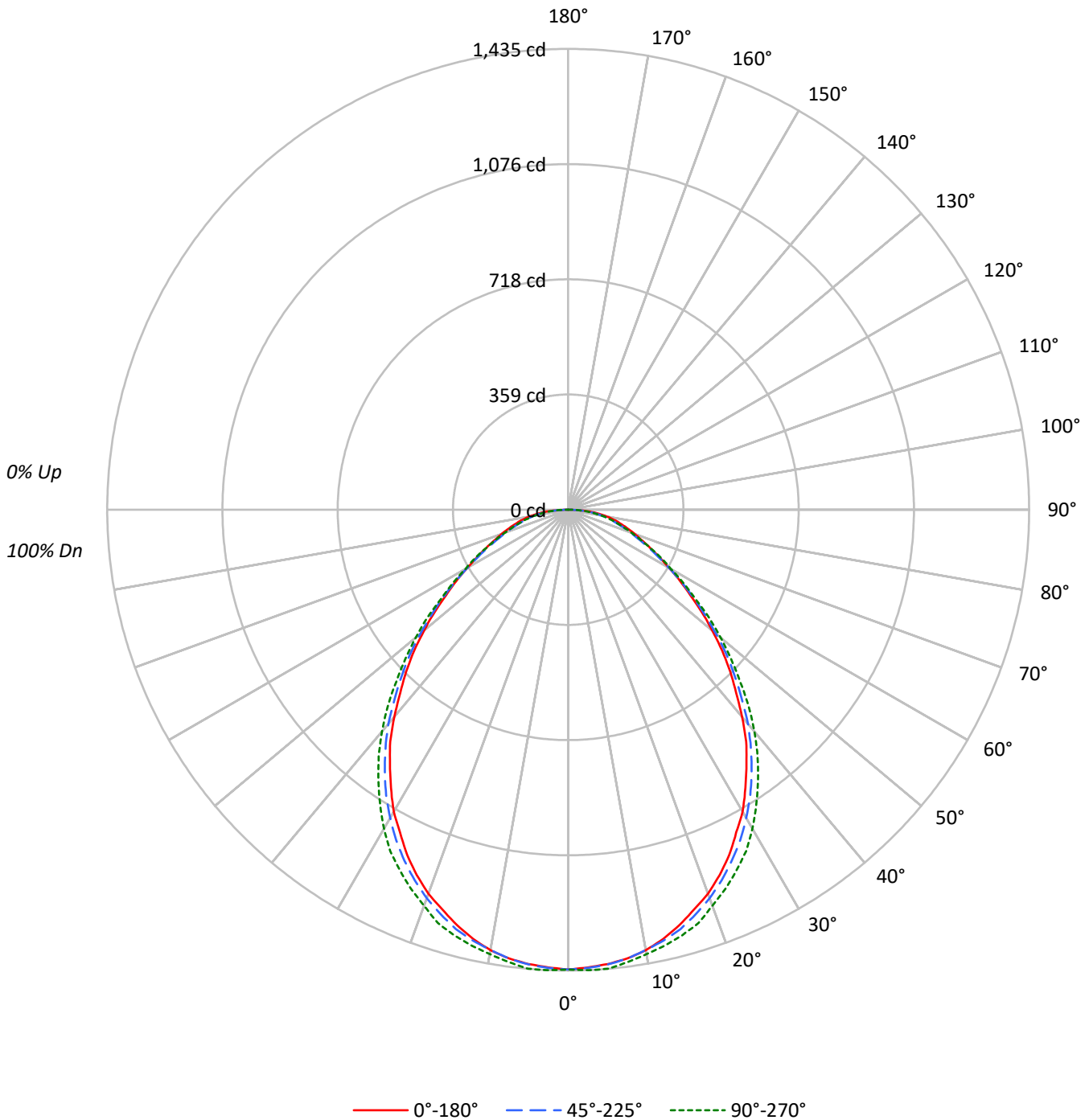
Input Watts (W): 28.458  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3853	3853	3853
5°	3836	3840	3875
10°	3806	3804	3840
15°	3729	3766	3821
20°	3644	3686	3757
25°	3523	3580	3680
30°	3375	3443	3564
35°	3177	3269	3385
40°	2957	3058	3168
45°	2715	2793	2879
50°	2449	2510	2590
55°	2173	2224	2262
60°	1947	1951	1991
65°	1794	1734	1794
70°	1733	1605	1651
75°	1762	1572	1602
80°	1900	1649	1649
85°	2106	1744	1723



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.1	4.2
10°-20°	380.9	11.9
20°-30°	556.0	17.4
30°-40°	622.5	19.5
40°-50°	566.5	17.7
50°-60°	426.4	13.3
60°-70°	278.2	8.7
70°-80°	166.9	5.2
80°-90°	62.6	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°	1072.0	33.6
0°-40°	1694.4	53.0
0°-60°	2687.3	84.1
0°-90°	3195.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3195.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1432	1432	1432	1432	1432	
5°	1420	1418	1422	1427	1435	135
15°	1338	1340	1352	1363	1372	377
25°	1187	1190	1206	1228	1240	545
35°	967	976	995	1019	1030	604
45°	713	721	734	749	757	549
55°	463	470	474	481	482	418
65°	282	279	272	277	282	282
75°	170	164	151	152	154	180
85°	68	66	56	54	56	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1431.7	1431.7	1431.7	1431.7	1431.7
2.5°	1426.6	1425.9	1428.1	1431.7	1435.4
5°	1420.0	1417.8	1421.5	1426.6	1434.7
7.5°	1409.7	1409.7	1409.7	1419.3	1420.7
10°	1392.9	1394.3	1392.1	1401.7	1405.3
12.5°	1368.6	1369.4	1373.8	1383.3	1389.9
15°	1338.5	1340.0	1351.8	1362.8	1371.6
17.5°	1304.8	1309.9	1320.9	1338.5	1349.6
20°	1272.5	1278.4	1287.2	1306.3	1312.1
22.5°	1231.4	1238.0	1249.0	1265.9	1278.4
25°	1186.6	1190.3	1205.7	1227.7	1239.5
27.5°	1133.1	1141.1	1160.2	1183.0	1199.1
30°	1086.1	1090.5	1108.1	1134.5	1147.0
32.5°	1026.7	1039.9	1054.5	1078.0	1089.8
35°	967.2	976.0	995.1	1018.6	1030.3
37.5°	910.0	915.1	934.2	954.0	968.7
40°	841.7	851.3	870.4	891.6	901.9
42.5°	773.5	787.4	799.9	821.2	832.2
45°	713.3	720.6	733.9	749.3	756.6
47.5°	650.2	653.9	669.3	678.8	686.9
50°	584.9	589.3	599.6	609.1	618.6
52.5°	524.7	528.4	535.0	543.8	553.3
55°	463.1	469.7	474.1	480.7	482.1
57.5°	413.2	412.4	415.4	420.5	425.6
60°	361.8	363.3	362.5	367.7	369.9
62.5°	319.2	318.5	314.1	321.4	327.3
65°	281.8	278.9	272.3	276.7	281.8
67.5°	247.3	245.8	234.8	238.5	242.9
70°	220.2	215.0	204.0	206.2	209.9
72.5°	193.7	187.9	176.9	177.6	179.8
75°	169.5	163.6	151.2	151.9	154.1
77.5°	146.8	139.4	128.4	127.0	128.4
80°	122.6	115.9	106.4	102.0	106.4
82.5°	97.6	93.9	82.9	78.5	80.0
85°	68.2	66.0	56.5	53.6	55.8
87.5°	31.6	33.8	28.6	26.4	27.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)