

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: P292675

Luminaire Tested: **22GR-LD5-28-A19/156-UNV-L92765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292675  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33284)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-28-A19/156-UNV-L92765-W2A1-U-5700K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2709.0 lumens  
Efficiency: N/A  
Efficacy: 119.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.21  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

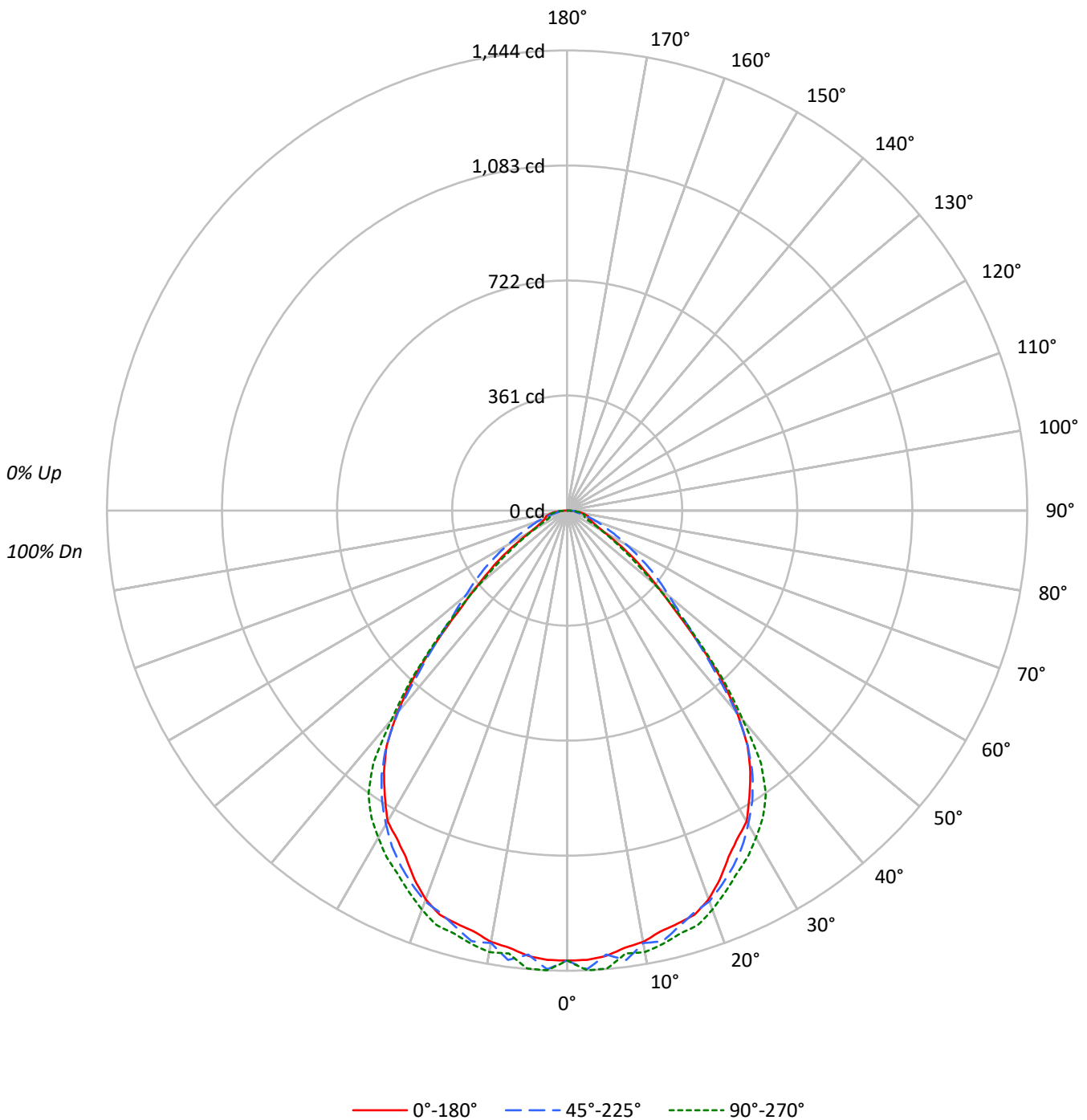
Input Watts (W): 22.692  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	91	90	88					88			
2	103	96	90	85	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	75	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	58	80	70	63	57	68	62	57	66	61	56	64	59	56	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44					44			
8	67	55	47	42	66	54	47	42	53	46	42	52	46	41	51	45	41	40					40			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36					36			
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33					33			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3799	3799	3799
5°	3790	3778	3897
10°	3755	3765	3844
15°	3738	3766	3827
20°	3718	3736	3816
25°	3559	3659	3735
30°	3500	3532	3683
35°	3292	3334	3571
40°	2917	2897	3011
45°	2179	2184	2245
50°	1534	1745	1486
55°	1132	1473	1015
60°	708	1165	663
65°	577	923	464
70°	573	769	457
75°	710	565	591
80°	792	445	722
85°	787	827	809



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.4	5.0
10°-20°	382.8	14.1
20°-30°	567.0	20.9
30°-40°	635.1	23.4
40°-50°	466.7	17.2
50°-60°	260.8	9.6
60°-70°	145.4	5.4
70°-80°	85.4	3.2
80°-90°	31.4	1.2
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°	1084.2	40.0
0°-40°	1719.3	63.5
0°-60°	2446.8	90.3
0°-90°	2709.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2709.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1412	1412	1412	1412	1412	
5°	1403	1429	1398	1427	1442	133
15°	1342	1350	1352	1372	1374	379
25°	1199	1208	1232	1250	1258	556
35°	1002	1003	1015	1061	1087	621
45°	572	619	574	615	590	447
55°	241	294	314	313	216	215
65°	91	161	145	186	73	94
75°	68	96	54	109	57	69
85°	26	38	27	34	26	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1411.9	1411.9	1411.9	1411.9	1411.9
2.5°	1411.2	1424.0	1440.6	1442.5	1443.8
5°	1402.9	1429.1	1398.5	1427.2	1442.5
7.5°	1383.8	1399.7	1422.1	1393.3	1401.6
10°	1374.2	1378.0	1378.0	1413.8	1406.7
12.5°	1352.5	1378.0	1384.4	1377.4	1392.7
15°	1341.6	1349.9	1351.9	1372.3	1373.6
17.5°	1329.5	1327.6	1323.1	1337.8	1364.0
20°	1298.2	1291.2	1304.6	1322.5	1332.7
22.5°	1252.3	1254.2	1270.2	1284.8	1296.3
25°	1198.7	1208.2	1232.5	1249.7	1258.0
27.5°	1158.5	1172.5	1189.1	1209.5	1226.1
30°	1126.5	1125.3	1136.8	1166.1	1185.3
32.5°	1064.6	1069.1	1081.2	1116.3	1143.1
35°	1002.1	1002.7	1014.9	1060.8	1087.0
37.5°	930.0	924.9	931.9	981.7	998.9
40°	830.4	831.7	824.6	859.8	857.2
42.5°	714.2	724.4	688.1	734.0	730.8
45°	572.5	619.1	573.8	614.7	589.8
47.5°	451.9	520.8	483.2	513.2	466.6
50°	366.4	437.2	416.8	430.2	354.9
52.5°	300.6	358.1	364.5	367.6	277.0
55°	241.3	293.6	314.0	313.4	216.4
57.5°	178.1	238.7	262.3	271.9	164.0
60°	131.5	198.5	216.4	237.4	123.2
62.5°	106.0	174.2	178.7	208.1	93.8
65°	90.6	160.8	144.9	185.7	72.8
67.5°	80.4	150.0	118.1	166.0	61.9
70°	72.8	133.4	97.7	148.7	58.1
72.5°	70.8	113.6	75.3	132.8	57.4
75°	68.3	96.4	54.3	109.1	56.8
77.5°	58.7	82.3	38.9	84.3	53.0
80°	51.1	65.7	28.7	63.2	46.6
82.5°	39.6	49.8	25.5	47.9	37.7
85°	25.5	37.7	26.8	34.5	26.2
87.5°	12.1	21.1	19.1	18.5	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)