

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: P292615

Luminaire Tested: **22GR-LD5-20-A19/156-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292615  
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-LD5-20-A19/156-UNV-L93050-W2A1-U-3000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1592.0 lumens  
Efficiency: N/A  
Efficacy: 100.7 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

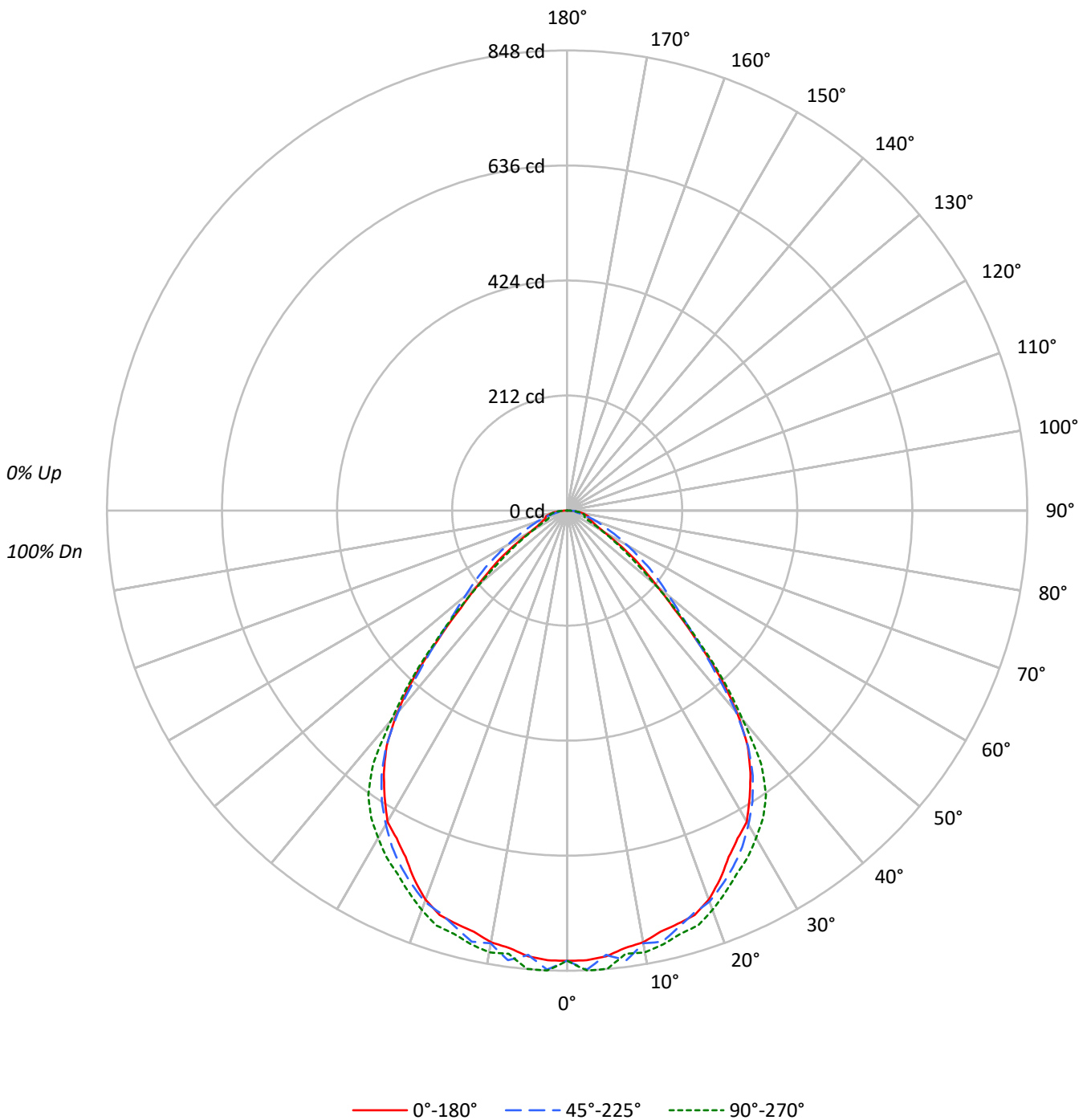
Input Watts (W): 15.81  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2233	2233	2233
5°	2227	2220	2290
10°	2207	2213	2259
15°	2196	2213	2249
20°	2185	2196	2243
25°	2091	2151	2195
30°	2057	2076	2164
35°	1935	1959	2099
40°	1714	1702	1770
45°	1281	1283	1319
50°	901	1025	873
55°	665	866	597
60°	416	685	390
65°	339	542	273
70°	337	452	268
75°	417	332	347
80°	465	262	425
85°	463	488	475



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.0	5.0
10°-20°	225.0	14.1
20°-30°	333.2	20.9
30°-40°	373.2	23.4
40°-50°	274.2	17.2
50°-60°	153.3	9.6
60°-70°	85.4	5.4
70°-80°	50.2	3.2
80°-90°	18.5	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°	637.2	40.0
0°-40°	1010.4	63.5
0°-60°	1437.9	90.3
0°-90°	1592.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1592.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	824	840	822	839	848	78
15°	788	793	794	806	807	223
25°	704	710	724	734	739	326
35°	589	589	596	623	639	365
45°	336	364	337	361	347	263
55°	142	172	184	184	127	127
65°	53	94	85	109	43	55
75°	40	57	32	64	33	40
85°	15	22	16	20	15	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	829.7	829.7	829.7	829.7	829.7
2.5°	829.3	836.8	846.6	847.7	848.5
5°	824.5	839.8	821.8	838.7	847.7
7.5°	813.2	822.6	835.7	818.8	823.7
10°	807.6	809.8	809.8	830.8	826.7
12.5°	794.8	809.8	813.6	809.5	818.5
15°	788.4	793.3	794.4	806.5	807.2
17.5°	781.3	780.2	777.6	786.2	801.6
20°	762.9	758.8	766.7	777.2	783.2
22.5°	735.9	737.1	746.4	755.1	761.8
25°	704.4	710.1	724.3	734.4	739.3
27.5°	680.8	689.0	698.8	710.8	720.6
30°	662.0	661.3	668.0	685.3	696.5
32.5°	625.7	628.3	635.4	656.0	671.8
35°	588.9	589.3	596.4	623.4	638.8
37.5°	546.5	543.5	547.6	576.9	587.0
40°	488.0	488.7	484.6	505.3	503.8
42.5°	419.7	425.7	404.4	431.4	429.5
45°	336.5	363.8	337.2	361.2	346.6
47.5°	265.6	306.1	283.9	301.6	274.2
50°	215.3	256.9	244.9	252.8	208.6
52.5°	176.7	210.4	214.2	216.1	162.8
55°	141.8	172.5	184.5	184.2	127.2
57.5°	104.7	140.3	154.2	159.8	96.4
60°	77.3	116.7	127.2	139.5	72.4
62.5°	62.3	102.4	105.0	122.3	55.1
65°	53.3	94.5	85.1	109.2	42.8
67.5°	47.3	88.1	69.4	97.5	36.4
70°	42.8	78.4	57.4	87.4	34.1
72.5°	41.6	66.8	44.3	78.0	33.8
75°	40.1	56.6	31.9	64.1	33.4
77.5°	34.5	48.4	22.9	49.5	31.1
80°	30.0	38.6	16.9	37.1	27.4
82.5°	23.3	29.3	15.0	28.1	22.1
85°	15.0	22.1	15.8	20.3	15.4
87.5°	7.1	12.4	11.3	10.9	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)