

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: P292616

Luminaire Tested: **22GR-LD5-20-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292616  
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-3500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1740.0 lumens  
Efficiency: N/A  
Efficacy: 110.7 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

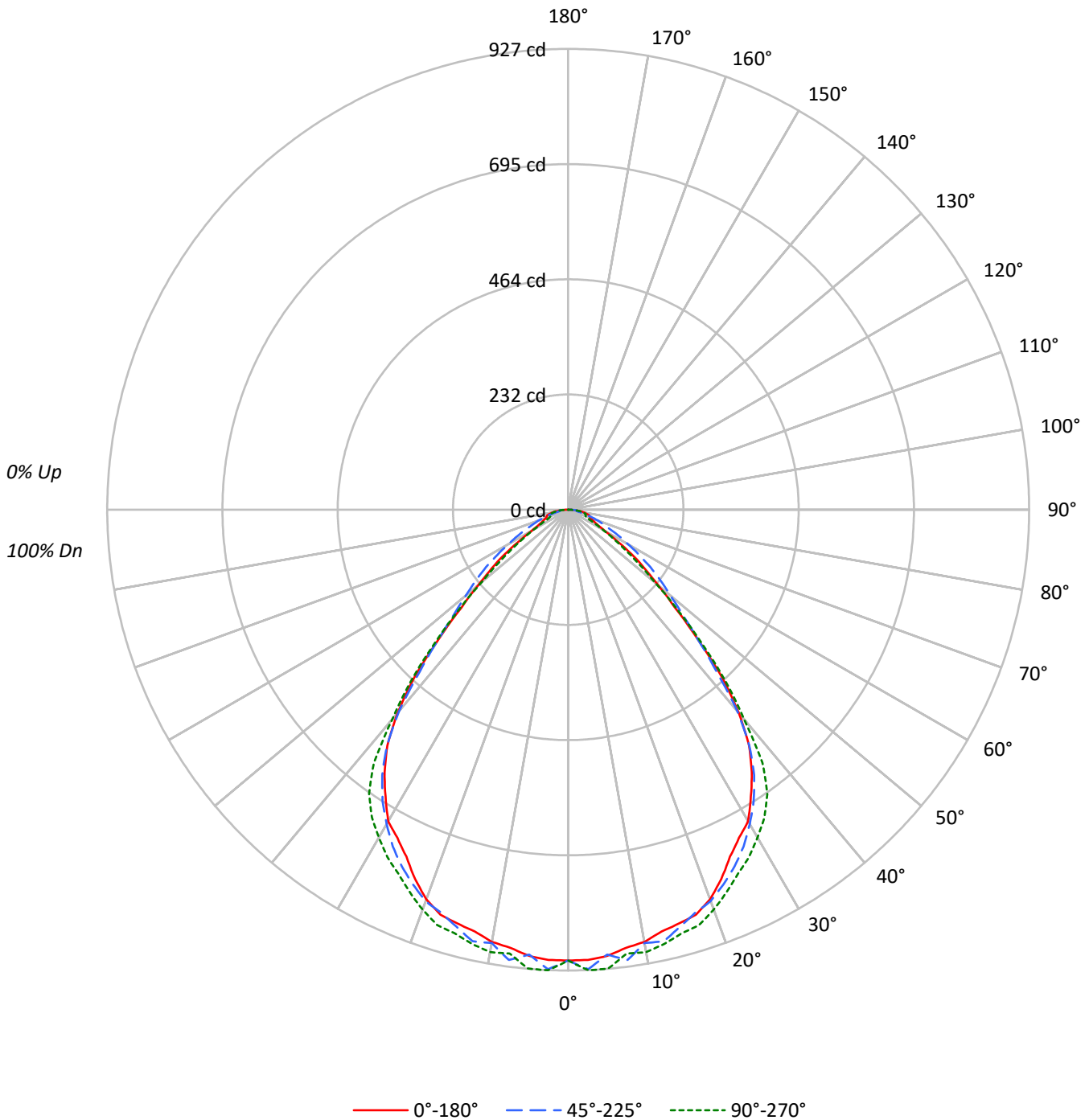
Input Watts (W): 15.717  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2440	2440	2440
5°	2434	2426	2503
10°	2412	2419	2469
15°	2401	2419	2458
20°	2388	2400	2451
25°	2286	2350	2399
30°	2248	2269	2366
35°	2114	2141	2294
40°	1874	1861	1934
45°	1399	1403	1442
50°	985	1121	954
55°	727	946	652
60°	455	748	426
65°	371	593	297
70°	367	493	293
75°	456	362	379
80°	508	285	463
85°	506	531	519



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.3	5.0
10°-20°	245.9	14.1
20°-30°	364.2	20.9
30°-40°	407.9	23.4
40°-50°	299.7	17.2
50°-60°	167.5	9.6
60°-70°	93.4	5.4
70°-80°	54.9	3.2
80°-90°	20.2	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°	696.4	40.0
0°-40°	1104.3	63.5
0°-60°	1571.6	90.3
0°-90°	1740.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1740.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	907	907	907	907	907	
5°	901	918	898	917	926	85
15°	862	867	868	881	882	243
25°	770	776	792	803	808	357
35°	644	644	652	681	698	399
45°	368	398	369	395	379	287
55°	155	189	202	201	139	138
65°	58	103	93	119	47	60
75°	44	62	35	70	36	44
85°	16	24	17	22	17	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	906.8	906.8	906.8	906.8	906.8
2.5°	906.4	914.6	925.3	926.5	927.3
5°	901.1	917.9	898.2	916.7	926.5
7.5°	888.8	899.1	913.4	895.0	900.3
10°	882.7	885.1	885.1	908.1	903.6
12.5°	868.7	885.1	889.2	884.7	894.5
15°	861.7	867.1	868.3	881.4	882.2
17.5°	854.0	852.7	849.9	859.3	876.1
20°	833.9	829.4	838.0	849.4	856.0
22.5°	804.3	805.6	815.8	825.3	832.6
25°	769.9	776.1	791.6	802.7	808.0
27.5°	744.1	753.1	763.8	776.9	787.5
30°	723.6	722.8	730.1	749.0	761.3
32.5°	683.8	686.7	694.5	717.0	734.2
35°	643.6	644.1	651.8	681.4	698.2
37.5°	597.3	594.0	598.5	630.5	641.6
40°	533.4	534.2	529.7	552.2	550.6
42.5°	458.7	465.3	441.9	471.5	469.4
45°	367.7	397.7	368.6	394.8	378.8
47.5°	290.3	334.5	310.3	329.6	299.7
50°	235.3	280.8	267.7	276.3	227.9
52.5°	193.1	230.0	234.1	236.1	177.9
55°	155.0	188.6	201.7	201.3	139.0
57.5°	114.4	153.3	168.5	174.6	105.4
60°	84.5	127.5	139.0	152.5	79.1
62.5°	68.1	111.9	114.8	133.6	60.3
65°	58.2	103.3	93.1	119.3	46.7
67.5°	51.7	96.3	75.8	106.6	39.8
70°	46.7	85.7	62.7	95.5	37.3
72.5°	45.5	73.0	48.4	85.3	36.9
75°	43.9	61.9	34.8	70.1	36.5
77.5°	37.7	52.9	25.0	54.1	34.0
80°	32.8	42.2	18.4	40.6	29.9
82.5°	25.4	32.0	16.4	30.7	24.2
85°	16.4	24.2	17.2	22.1	16.8
87.5°	7.8	13.5	12.3	11.9	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)