

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: P292657

Luminaire Tested: **22GR-LD5-20-A19/156-UNV-L92765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292657  
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-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: 1930.0 lumens  
Efficiency: N/A  
Efficacy: 121.4 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

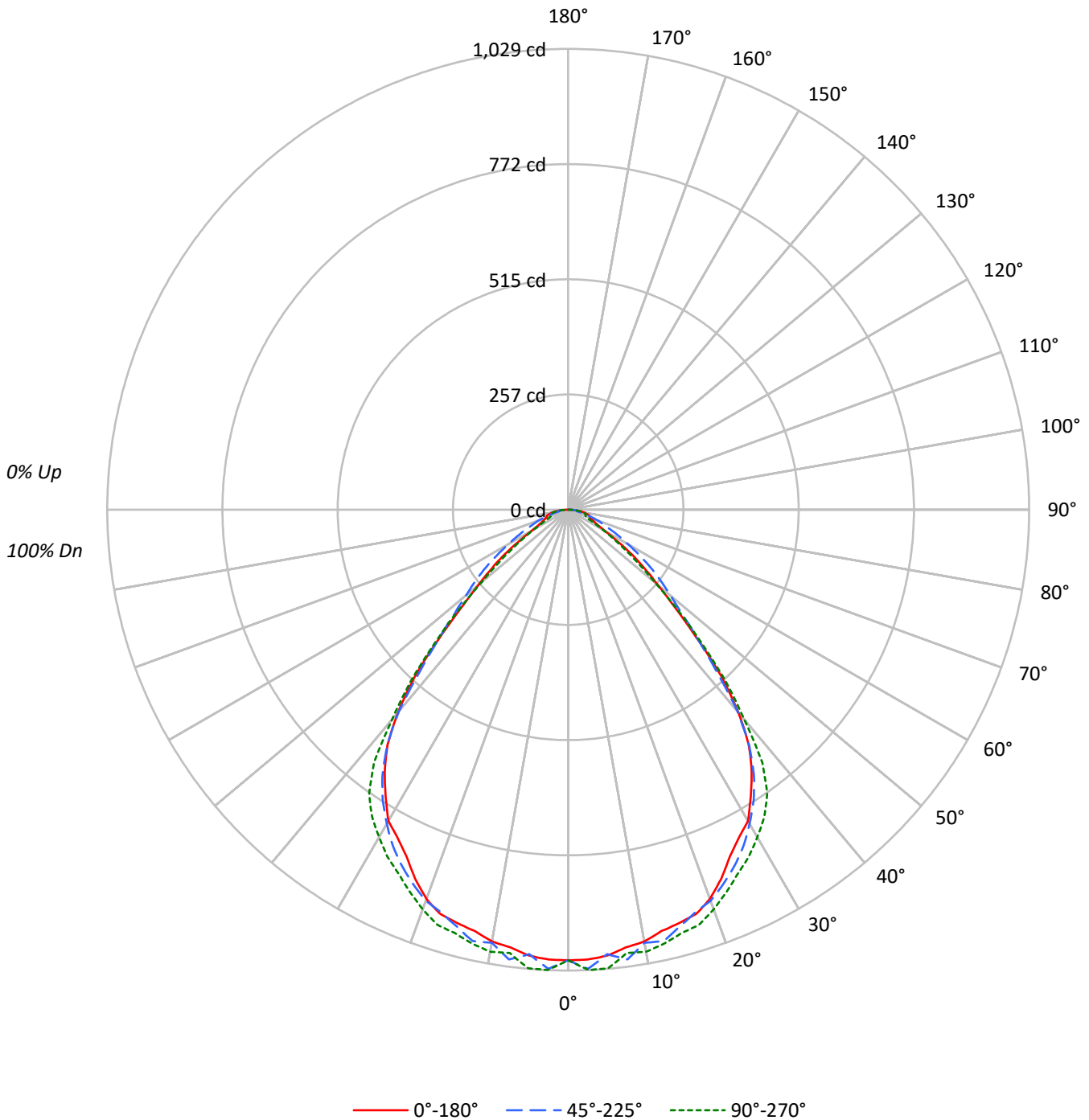
Input Watts (W): 15.903  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2707	2707	2707
5°	2700	2691	2776
10°	2675	2683	2739
15°	2663	2683	2726
20°	2649	2662	2719
25°	2536	2607	2661
30°	2494	2517	2624
35°	2345	2375	2544
40°	2078	2064	2145
45°	1552	1556	1599
50°	1093	1243	1058
55°	806	1050	723
60°	504	830	473
65°	411	657	330
70°	408	548	326
75°	506	402	421
80°	564	318	514
85°	562	590	574



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.8	5.0
10°-20°	272.7	14.1
20°-30°	403.9	20.9
30°-40°	452.5	23.4
40°-50°	332.5	17.2
50°-60°	185.8	9.6
60°-70°	103.6	5.4
70°-80°	60.9	3.2
80°-90°	22.4	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°	772.4	40.0
0°-40°	1224.9	63.5
0°-60°	1743.2	90.3
0°-90°	1930.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1930.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	1000	1018	996	1017	1028	95
15°	956	962	963	978	979	270
25°	854	861	878	890	896	396
35°	714	714	723	756	774	442
45°	408	441	409	438	420	319
55°	172	209	224	223	154	153
65°	65	115	103	132	52	67
75°	49	69	39	78	40	49
85°	18	27	19	25	19	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1005.9	1005.9	1005.9	1005.9	1005.9
2.5°	1005.4	1014.5	1026.3	1027.7	1028.6
5°	999.5	1018.1	996.3	1016.8	1027.7
7.5°	985.9	997.2	1013.1	992.7	998.6
10°	979.0	981.8	981.8	1007.2	1002.2
12.5°	963.6	981.8	986.3	981.3	992.2
15°	955.8	961.8	963.1	977.7	978.6
17.5°	947.2	945.8	942.7	953.1	971.8
20°	924.9	919.9	929.5	942.2	949.5
22.5°	892.2	893.5	904.9	915.4	923.6
25°	854.0	860.8	878.1	890.4	896.3
27.5°	825.3	835.3	847.2	861.7	873.5
30°	802.6	801.7	809.9	830.8	844.4
32.5°	758.5	761.7	770.3	795.3	814.4
35°	713.9	714.4	723.0	755.8	774.4
37.5°	662.5	658.9	663.9	699.4	711.7
40°	591.6	592.5	587.5	612.5	610.7
42.5°	508.8	516.1	490.2	522.9	520.7
45°	407.9	441.1	408.8	437.9	420.2
47.5°	321.9	371.1	344.2	365.6	332.4
50°	261.0	311.5	296.9	306.5	252.8
52.5°	214.2	255.1	259.7	261.9	197.4
55°	171.9	209.2	223.7	223.3	154.2
57.5°	126.9	170.1	186.9	193.7	116.9
60°	93.7	141.4	154.2	169.2	87.8
62.5°	75.5	124.1	127.3	148.2	66.8
65°	64.6	114.6	103.2	132.3	51.8
67.5°	57.3	106.9	84.1	118.2	44.1
70°	51.8	95.0	69.6	106.0	41.4
72.5°	50.5	80.9	53.7	94.6	40.9
75°	48.7	68.7	38.7	77.8	40.5
77.5°	41.8	58.7	27.7	60.0	37.7
80°	36.4	46.8	20.5	45.0	33.2
82.5°	28.2	35.5	18.2	34.1	26.8
85°	18.2	26.8	19.1	24.6	18.6
87.5°	8.6	15.0	13.6	13.2	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)