

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: P292618

Luminaire Tested: **22GR-LD5-20-A19/156-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292618
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-4500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1912.0 lumens
Efficiency: N/A
Efficacy: 118.8 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

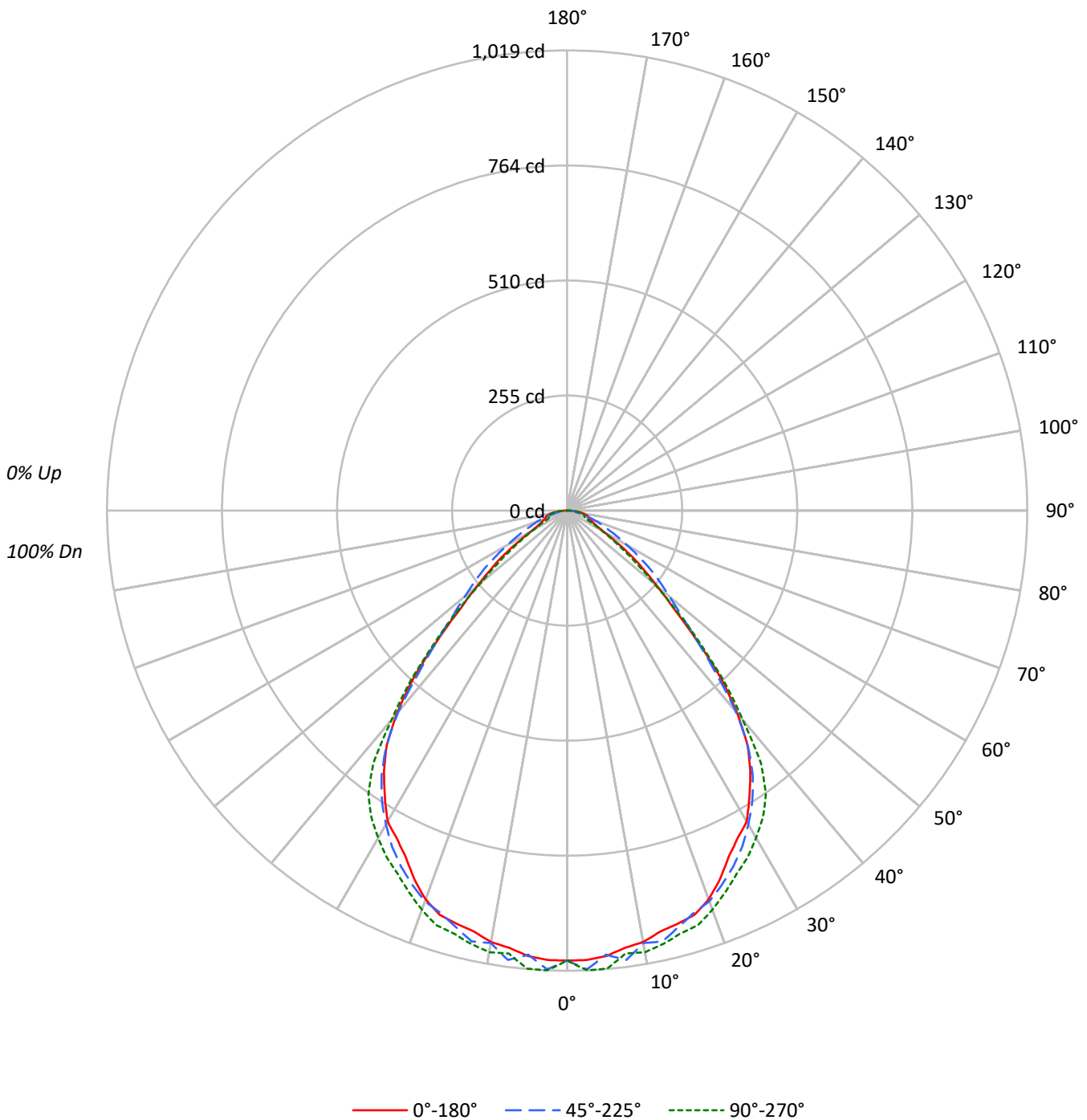
Input Watts (W): 16.089
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P292618

CATALOG NUMBER: 22GR-LD5-20-A19/156-UNV-L93050-W2A1-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P292618

CATALOG NUMBER: 22GR-LD5-20-A19/156-UNV-L93050-W2A1-U-4500K

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°	2682	2682	2682
5°	2675	2666	2750
10°	2650	2658	2713
15°	2638	2658	2701
20°	2624	2637	2694
25°	2512	2583	2636
30°	2471	2493	2600
35°	2324	2353	2520
40°	2059	2044	2125
45°	1538	1541	1584
50°	1083	1232	1049
55°	799	1040	716
60°	499	822	468
65°	408	651	327
70°	404	542	323
75°	501	398	417
80°	558	315	510
85°	556	584	571



TEST NUMBER: P292618

CATALOG NUMBER: 22GR-LD5-20-A19/156-UNV-L93050-W2A1-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	5.0
10°-20°	270.2	14.1
20°-30°	400.2	20.9
30°-40°	448.3	23.4
40°-50°	329.4	17.2
50°-60°	184.1	9.6
60°-70°	102.6	5.4
70°-80°	60.3	3.2
80°-90°	22.2	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°	765.2	40.0
0°-40°	1213.5	63.5
0°-60°	1727.0	90.3
0°-90°	1912.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1912.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	996	996	996	996	996	
5°	990	1009	987	1007	1018	94
15°	947	953	954	969	970	267
25°	846	853	870	882	888	392
35°	707	708	716	749	767	438
45°	404	437	405	434	416	316
55°	170	207	222	221	153	152
65°	64	114	102	131	51	66
75°	48	68	38	77	40	48
85°	18	27	19	24	18	20
90°	0	0	0	0	0	



TEST NUMBER: P292618

CATALOG NUMBER: 22GR-LD5-20-A19/156-UNV-L93050-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	996.5	996.5	996.5	996.5	996.5
2.5°	996.0	1005.0	1016.8	1018.1	1019.0
5°	990.2	1008.6	987.0	1007.3	1018.1
7.5°	976.7	987.9	1003.7	983.4	989.3
10°	969.9	972.6	972.6	997.8	992.9
12.5°	954.6	972.6	977.1	972.2	983.0
15°	946.9	952.8	954.1	968.6	969.5
17.5°	938.4	937.0	933.9	944.2	962.7
20°	916.3	911.3	920.8	933.4	940.6
22.5°	883.9	885.2	896.5	906.8	914.9
25°	846.0	852.8	869.9	882.1	887.9
27.5°	817.6	827.5	839.3	853.7	865.4
30°	795.1	794.2	802.3	823.0	836.6
32.5°	751.4	754.6	763.1	787.9	806.8
35°	707.3	707.7	716.3	748.7	767.2
37.5°	656.4	652.8	657.7	692.9	705.0
40°	586.1	587.0	582.0	606.8	605.0
42.5°	504.1	511.3	485.6	518.1	515.8
45°	404.1	437.0	405.0	433.8	416.3
47.5°	318.9	367.6	341.0	362.2	329.3
50°	258.6	308.6	294.2	303.6	250.5
52.5°	212.2	252.7	257.2	259.5	195.5
55°	170.3	207.2	221.6	221.2	152.7
57.5°	125.7	168.5	185.2	191.9	115.8
60°	92.8	140.1	152.7	167.6	86.9
62.5°	74.8	123.0	126.1	146.9	66.2
65°	64.0	113.5	102.3	131.1	51.4
67.5°	56.8	105.9	83.3	117.1	43.7
70°	51.4	94.2	68.9	105.0	41.0
72.5°	50.0	80.2	53.2	93.7	40.5
75°	48.2	68.0	38.3	77.0	40.1
77.5°	41.4	58.1	27.5	59.5	37.4
80°	36.0	46.4	20.3	44.6	32.9
82.5°	27.9	35.1	18.0	33.8	26.6
85°	18.0	26.6	18.9	24.3	18.5
87.5°	8.6	14.9	13.5	13.1	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)