

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: P291440

Luminaire Tested: **14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291440
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33288)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-3500K
Description: GRLED 1x4 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: 1703.0 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.23 / 1.18
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

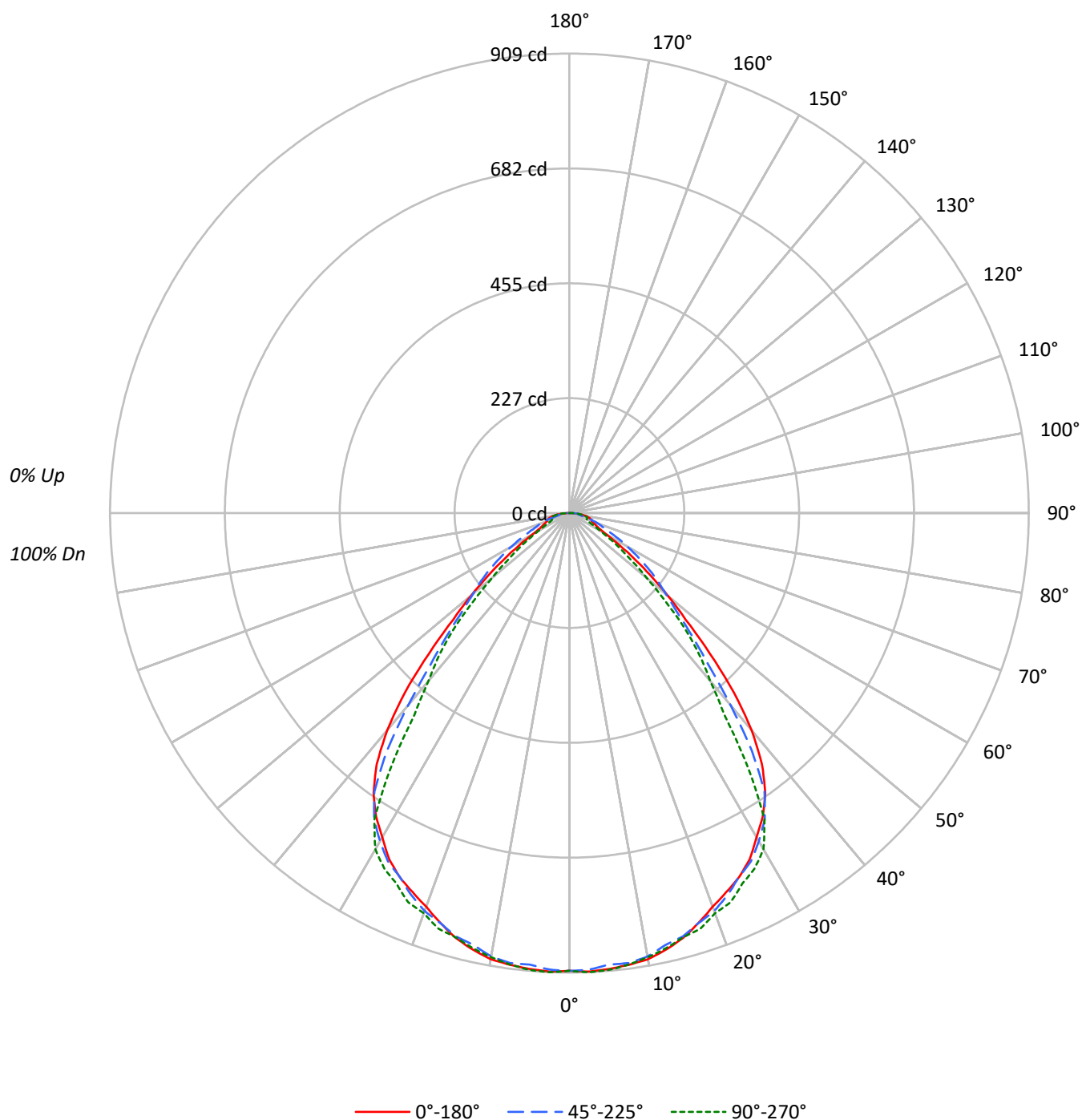
Input Watts (W): 15.81
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P291440

CATALOG NUMBER: 14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P291440

CATALOG NUMBER: 14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-3500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77		
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68		
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61		
5	83	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54		
6	77	65	58	52	75	64	57	52	63	56	51	61	55	51	60	55	51	49		
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44		
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40		
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37		
10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2437	2437	2437
5°	2445	2422	2450
10°	2449	2434	2438
15°	2424	2415	2421
20°	2373	2399	2412
25°	2359	2358	2403
30°	2302	2330	2386
35°	2219	2211	2031
40°	1971	1739	1523
45°	1496	1301	1231
50°	1061	1041	836
55°	726	889	574
60°	449	709	384
65°	370	546	278
70°	368	475	286
75°	442	340	381
80°	507	315	477
85°	482	553	540



TEST NUMBER: P291440

CATALOG NUMBER: 14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.9	5.0
10°-20°	245.2	14.4
20°-30°	368.8	21.7
30°-40°	402.1	23.6
40°-50°	281.5	16.5
50°-60°	159.4	9.4
60°-70°	87.2	5.1
70°-80°	52.8	3.1
80°-90°	20.0	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°	700.0	41.1
0°-40°	1102.0	64.7
0°-60°	1542.9	90.6
0°-90°	1703.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1703.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	906	906	906	906	906	
5°	905	904	897	907	907	86
15°	870	868	867	880	869	245
25°	794	796	794	812	809	365
35°	676	672	673	639	618	416
45°	393	410	342	338	324	305
55°	155	185	190	188	122	141
65°	58	96	86	108	44	60
75°	42	61	33	64	37	44
85°	16	25	18	22	18	17
90°	0	0	0	0	0	



TEST NUMBER: P291440

CATALOG NUMBER: 14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	905.6	905.6	905.6	905.6	905.6
2.5°	907.9	906.8	904.0	909.5	909.1
5°	905.2	903.6	896.6	907.1	907.1
7.5°	901.3	897.4	897.8	903.6	900.9
10°	896.2	889.6	890.8	892.3	892.3
12.5°	884.5	878.3	875.2	880.2	881.8
15°	870.1	867.8	867.0	879.5	868.9
17.5°	849.8	854.9	850.2	860.4	861.9
20°	828.8	838.5	837.8	844.8	842.4
22.5°	811.6	817.9	817.9	826.5	833.5
25°	794.5	796.0	794.1	812.4	809.3
27.5°	772.3	771.1	777.3	786.7	792.9
30°	740.7	741.1	749.7	762.1	768.0
32.5°	711.8	708.3	718.9	724.3	718.1
35°	675.6	672.5	672.9	638.6	618.3
37.5°	626.1	628.8	592.9	530.2	503.7
40°	561.0	566.4	495.1	448.3	433.5
42.5°	482.2	483.8	405.8	390.6	380.9
45°	393.0	410.1	341.9	337.6	323.6
47.5°	311.5	343.4	286.5	289.3	255.7
50°	253.4	285.4	248.7	249.9	199.6
52.5°	200.4	231.6	219.5	216.0	156.7
55°	154.8	185.2	189.5	187.9	122.4
57.5°	113.8	146.6	159.1	164.9	94.3
60°	83.4	119.7	131.8	143.5	71.3
62.5°	66.3	103.7	108.0	125.1	55.4
65°	58.1	95.5	85.8	108.4	43.7
67.5°	51.8	90.8	69.8	95.9	38.2
70°	46.8	81.9	60.4	85.8	36.3
72.5°	46.8	71.7	47.6	76.0	36.6
75°	42.5	61.2	32.7	64.3	36.6
77.5°	37.8	52.2	24.6	52.2	34.3
80°	32.7	40.9	20.3	40.2	30.8
82.5°	24.2	30.8	17.5	30.0	24.9
85°	15.6	25.3	17.9	21.8	17.5
87.5°	7.4	12.9	11.3	10.9	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)