

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: P291441

Luminaire Tested: **14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291441
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-4000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1840.0 lumens
Efficiency: N/A
Efficacy: 115.7 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

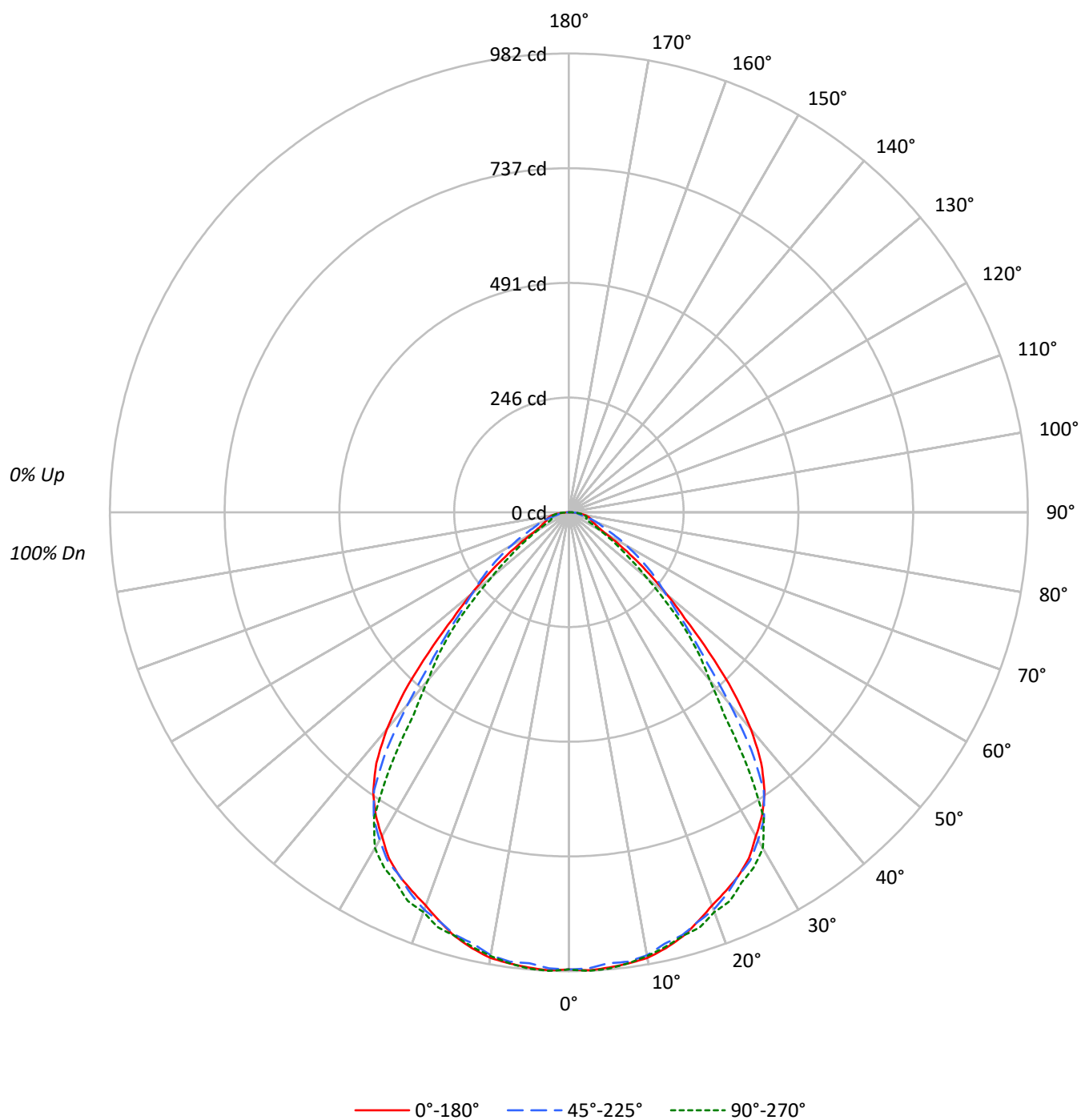
Input Watts (W): 15.903
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P291441

CATALOG NUMBER: 14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P291441

CATALOG NUMBER: 14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-4000K

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°	2633	2633	2633
5°	2642	2617	2648
10°	2646	2630	2634
15°	2619	2610	2615
20°	2564	2592	2607
25°	2549	2548	2596
30°	2487	2517	2578
35°	2398	2388	2194
40°	2129	1879	1645
45°	1616	1406	1330
50°	1146	1125	903
55°	784	960	621
60°	485	766	415
65°	400	590	301
70°	397	514	308
75°	477	368	412
80°	549	339	516
85°	519	599	587



TEST NUMBER: P291441

CATALOG NUMBER: 14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.8	5.0
10°-20°	265.0	14.4
20°-30°	398.5	21.7
30°-40°	434.4	23.6
40°-50°	304.2	16.5
50°-60°	172.2	9.4
60°-70°	94.2	5.1
70°-80°	57.1	3.1
80°-90°	21.7	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°	756.3	41.1
0°-40°	1190.7	64.7
0°-60°	1667.0	90.6
0°-90°	1840.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1840.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	978	978	978	978	978	
5°	978	976	969	980	980	93
15°	940	938	937	950	939	264
25°	858	860	858	878	874	394
35°	730	727	727	690	668	450
45°	425	443	369	365	350	330
55°	167	200	205	203	132	153
65°	63	103	93	117	47	64
75°	46	66	35	70	40	48
85°	17	27	19	24	19	19
90°	0	0	0	0	0	



TEST NUMBER: P291441

CATALOG NUMBER: 14GR-LD5-20-A19/156-UNV-L93050-W2A1-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	978.4	978.4	978.4	978.4	978.4
2.5°	981.0	979.7	976.8	982.7	982.2
5°	978.0	976.3	968.8	980.1	980.1
7.5°	973.8	969.6	970.0	976.3	973.4
10°	968.3	961.2	962.4	964.1	964.1
12.5°	955.7	949.0	945.6	951.1	952.7
15°	940.1	937.6	936.7	950.2	938.8
17.5°	918.2	923.7	918.6	929.6	931.3
20°	895.5	906.0	905.2	912.7	910.2
22.5°	876.9	883.7	883.7	892.9	900.5
25°	858.4	860.1	858.0	877.8	874.4
27.5°	834.4	833.1	839.9	850.0	856.7
30°	800.3	800.7	810.0	823.4	829.8
32.5°	769.1	765.3	776.7	782.6	775.8
35°	729.9	726.6	727.0	689.9	668.0
37.5°	676.4	679.4	640.6	572.8	544.2
40°	606.1	612.0	534.9	484.4	468.4
42.5°	521.0	522.7	438.5	422.0	411.5
45°	424.6	443.1	369.4	364.8	349.6
47.5°	336.5	371.1	309.6	312.5	276.3
50°	273.8	308.3	268.7	270.0	215.7
52.5°	216.5	250.2	237.1	233.3	169.3
55°	167.2	200.1	204.7	203.0	132.3
57.5°	123.0	158.4	171.8	178.2	101.9
60°	90.1	129.3	142.4	155.0	77.1
62.5°	71.6	112.0	116.7	135.2	59.8
65°	62.8	103.2	92.7	117.1	47.2
67.5°	56.0	98.1	75.4	103.6	41.3
70°	50.5	88.5	65.3	92.7	39.2
72.5°	50.5	77.5	51.4	82.1	39.6
75°	45.9	66.1	35.4	69.5	39.6
77.5°	40.9	56.4	26.5	56.4	37.1
80°	35.4	44.2	21.9	43.4	33.3
82.5°	26.1	33.3	19.0	32.4	27.0
85°	16.8	27.4	19.4	23.6	19.0
87.5°	8.0	13.9	12.2	11.8	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)