

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: P291449

Luminaire Tested: **14GR-LD5-28-A19/156-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291449
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-LD5-28-A19/156-UNV-L93050-W2A1-U-3000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2179.0 lumens
Efficiency: N/A
Efficacy: 96.0 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

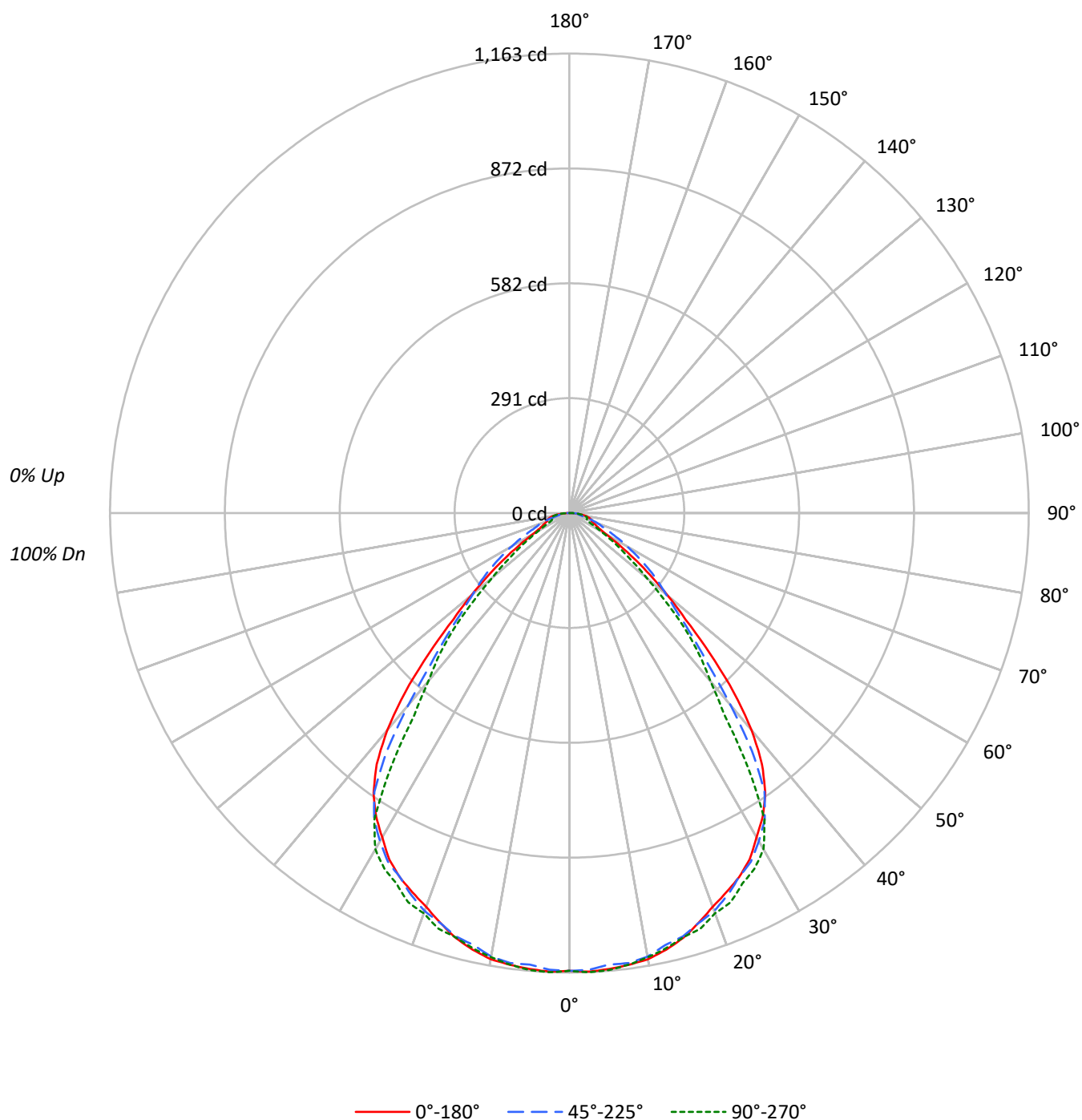
Input Watts (W): 22.692
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P291449

CATALOG NUMBER: 14GR-LD5-28-A19/156-UNV-L93050-W2A1-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P291449

CATALOG NUMBER: 14GR-LD5-28-A19/156-UNV-L93050-W2A1-U-3000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3118	3118	3118
5°	3129	3099	3135
10°	3133	3114	3120
15°	3102	3090	3097
20°	3037	3070	3087
25°	3018	3017	3075
30°	2945	2980	3053
35°	2840	2828	2599
40°	2522	2225	1949
45°	1913	1665	1576
50°	1357	1332	1069
55°	929	1137	735
60°	574	907	491
65°	473	699	356
70°	471	608	365
75°	566	436	488
80°	649	401	611
85°	618	707	692



TEST NUMBER: P291449

CATALOG NUMBER: 14GR-LD5-28-A19/156-UNV-L93050-W2A1-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.9	5.0
10°-20°	313.8	14.4
20°-30°	471.9	21.7
30°-40°	514.4	23.6
40°-50°	360.2	16.5
50°-60°	203.9	9.4
60°-70°	111.6	5.1
70°-80°	67.6	3.1
80°-90°	25.6	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°	895.6	41.1
0°-40°	1410.1	64.7
0°-60°	1974.2	90.6
0°-90°	2179.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2179.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1159	1159	1159	1159	1159	
5°	1158	1156	1147	1161	1161	110
15°	1113	1110	1109	1125	1112	313
25°	1017	1018	1016	1040	1036	467
35°	864	860	861	817	791	533
45°	503	525	437	432	414	390
55°	198	237	242	240	157	181
65°	74	122	110	139	56	76
75°	54	78	42	82	47	56
85°	20	32	23	28	22	22
90°	0	0	0	0	0	



TEST NUMBER: P291449

CATALOG NUMBER: 14GR-LD5-28-A19/156-UNV-L93050-W2A1-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1158.7	1158.7	1158.7	1158.7	1158.7
2.5°	1161.7	1160.2	1156.7	1163.7	1163.2
5°	1158.2	1156.2	1147.2	1160.7	1160.7
7.5°	1153.2	1148.2	1148.7	1156.2	1152.7
10°	1146.7	1138.3	1139.8	1141.7	1141.7
12.5°	1131.8	1123.8	1119.8	1126.3	1128.3
15°	1113.3	1110.3	1109.3	1125.3	1111.8
17.5°	1087.4	1093.9	1087.9	1100.8	1102.8
20°	1060.4	1072.9	1071.9	1080.9	1077.9
22.5°	1038.5	1046.5	1046.5	1057.5	1066.4
25°	1016.6	1018.5	1016.1	1039.5	1035.5
27.5°	988.1	986.6	994.6	1006.6	1014.6
30°	947.7	948.2	959.2	975.1	982.6
32.5°	910.8	906.3	919.8	926.8	918.8
35°	864.4	860.4	860.9	817.0	791.1
37.5°	801.1	804.6	758.7	678.4	644.4
40°	717.8	724.8	633.5	573.6	554.7
42.5°	617.0	619.0	519.2	499.8	487.3
45°	502.8	524.7	437.4	432.0	414.0
47.5°	398.5	439.4	366.6	370.1	327.2
50°	324.2	365.1	318.2	319.7	255.4
52.5°	256.4	296.3	280.8	276.3	200.5
55°	198.0	236.9	242.4	240.4	156.6
57.5°	145.6	187.5	203.5	211.0	120.7
60°	106.7	153.1	168.6	183.6	91.3
62.5°	84.8	132.7	138.2	160.1	70.8
65°	74.3	122.2	109.7	138.7	55.9
67.5°	66.3	116.2	89.3	122.7	48.9
70°	59.9	104.7	77.3	109.7	46.4
72.5°	59.9	91.8	60.9	97.3	46.9
75°	54.4	78.3	41.9	82.3	46.9
77.5°	48.4	66.8	31.4	66.8	43.9
80°	41.9	52.4	25.9	51.4	39.4
82.5°	30.9	39.4	22.4	38.4	31.9
85°	20.0	32.4	22.9	27.9	22.4
87.5°	9.5	16.5	14.5	14.0	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)