

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: P291447

Luminaire Tested: **14GR-LD5-24-A19/156-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291447
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-LD5-24-A19/156-UNV-L93050-W2A1-U-4500K
Description: GRLED 1x4 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: 2192.0 lumens
Efficiency: N/A
Efficacy: 115.5 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

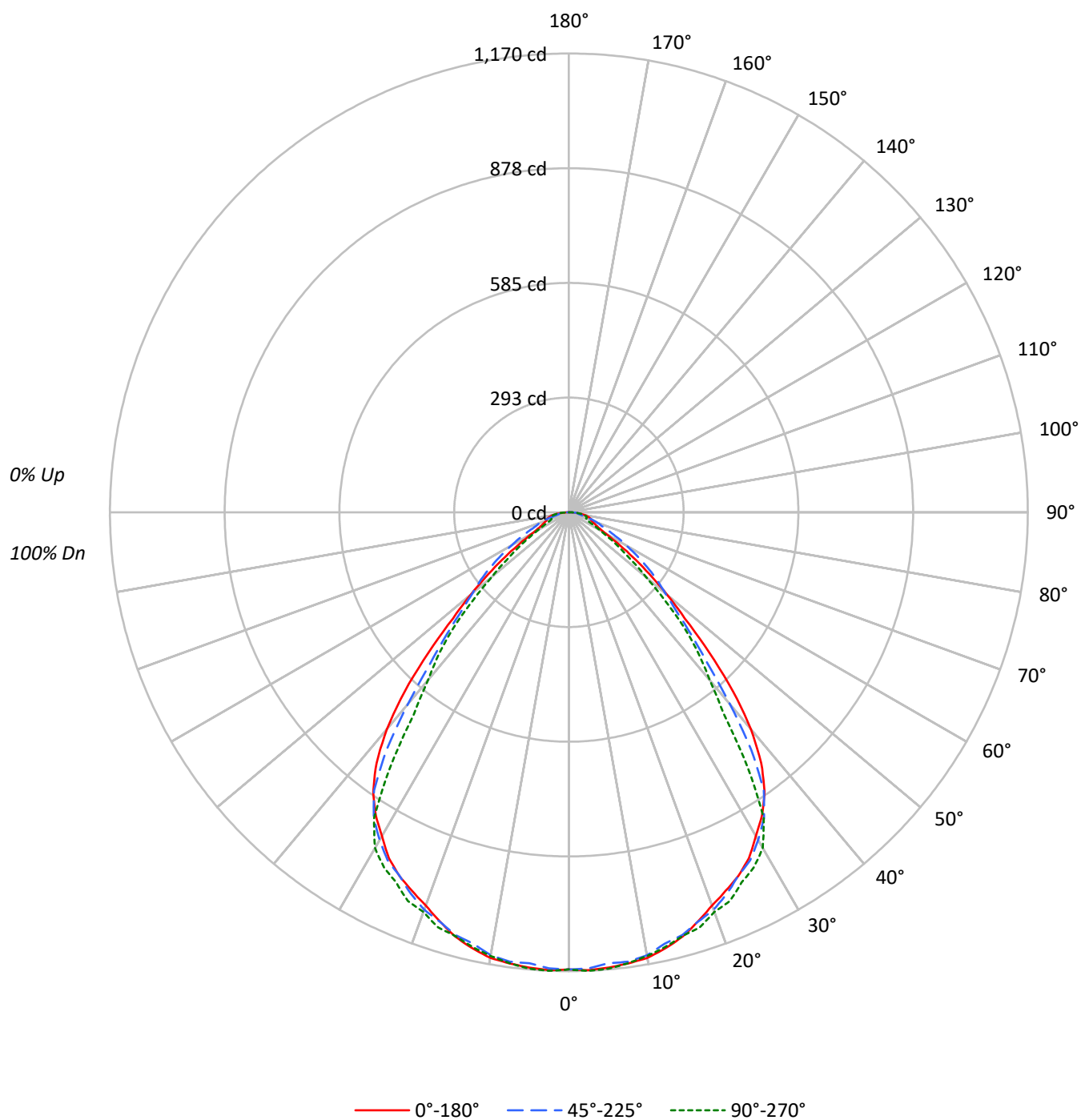
Input Watts (W): 18.972
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
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°	3137	3137	3137
5°	3147	3118	3154
10°	3152	3133	3139
15°	3120	3109	3116
20°	3055	3088	3105
25°	3036	3035	3093
30°	2962	2998	3072
35°	2857	2845	2614
40°	2537	2239	1960
45°	1925	1675	1585
50°	1366	1340	1075
55°	935	1144	739
60°	578	913	494
65°	476	703	358
70°	474	612	367
75°	569	438	491
80°	652	404	614
85°	621	713	698



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.6	5.0
10°-20°	315.7	14.4
20°-30°	474.7	21.7
30°-40°	517.5	23.6
40°-50°	362.4	16.5
50°-60°	205.1	9.4
60°-70°	112.2	5.1
70°-80°	68.0	3.1
80°-90°	25.8	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°	901.0	41.1
0°-40°	1418.5	64.7
0°-60°	1986.0	90.6
0°-90°	2192.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2192.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1166	1166	1166	1166	1166	
5°	1165	1163	1154	1168	1168	111
15°	1120	1117	1116	1132	1118	315
25°	1023	1025	1022	1046	1042	470
35°	870	866	866	822	796	536
45°	506	528	440	434	416	393
55°	199	238	244	242	158	182
65°	75	123	110	140	56	77
75°	55	79	42	83	47	57
85°	20	33	23	28	23	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1165.6	1165.6	1165.6	1165.6	1165.6
2.5°	1168.6	1167.1	1163.6	1170.6	1170.1
5°	1165.1	1163.1	1154.1	1167.6	1167.6
7.5°	1160.1	1155.1	1155.6	1163.1	1159.6
10°	1153.6	1145.0	1146.6	1148.6	1148.6
12.5°	1138.5	1130.5	1126.5	1133.0	1135.0
15°	1120.0	1116.9	1115.9	1132.0	1118.5
17.5°	1093.9	1100.4	1094.4	1107.4	1109.4
20°	1066.8	1079.3	1078.3	1087.3	1084.3
22.5°	1044.7	1052.7	1052.7	1063.8	1072.8
25°	1022.6	1024.6	1022.1	1045.7	1041.7
27.5°	994.0	992.5	1000.5	1012.6	1020.6
30°	953.4	953.9	964.9	981.0	988.5
32.5°	916.2	911.7	925.3	932.3	924.3
35°	869.6	865.6	866.1	821.9	795.8
37.5°	805.8	809.4	763.2	682.4	648.3
40°	722.1	729.1	637.3	577.0	558.0
42.5°	620.7	622.7	522.3	502.8	490.2
45°	505.8	527.9	440.1	434.5	416.5
47.5°	400.9	442.1	368.8	372.3	329.2
50°	326.2	367.3	320.1	321.6	256.9
52.5°	257.9	298.1	282.5	278.0	201.7
55°	199.2	238.3	243.9	241.9	157.6
57.5°	146.5	188.7	204.7	212.3	121.4
60°	107.4	154.0	169.6	184.7	91.8
62.5°	85.3	133.5	139.0	161.1	71.3
65°	74.8	122.9	110.4	139.5	56.2
67.5°	66.7	116.9	89.8	123.4	49.2
70°	60.2	105.4	77.8	110.4	46.7
72.5°	60.2	92.3	61.2	97.8	47.2
75°	54.7	78.8	42.1	82.8	47.2
77.5°	48.7	67.2	31.6	67.2	44.2
80°	42.1	52.7	26.1	51.7	39.6
82.5°	31.1	39.6	22.6	38.6	32.1
85°	20.1	32.6	23.1	28.1	22.6
87.5°	9.5	16.6	14.6	14.0	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)