

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: P291446

Luminaire Tested: **14GR-LD5-24-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291446
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-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: 2154.0 lumens
Efficiency: N/A
Efficacy: 115.2 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

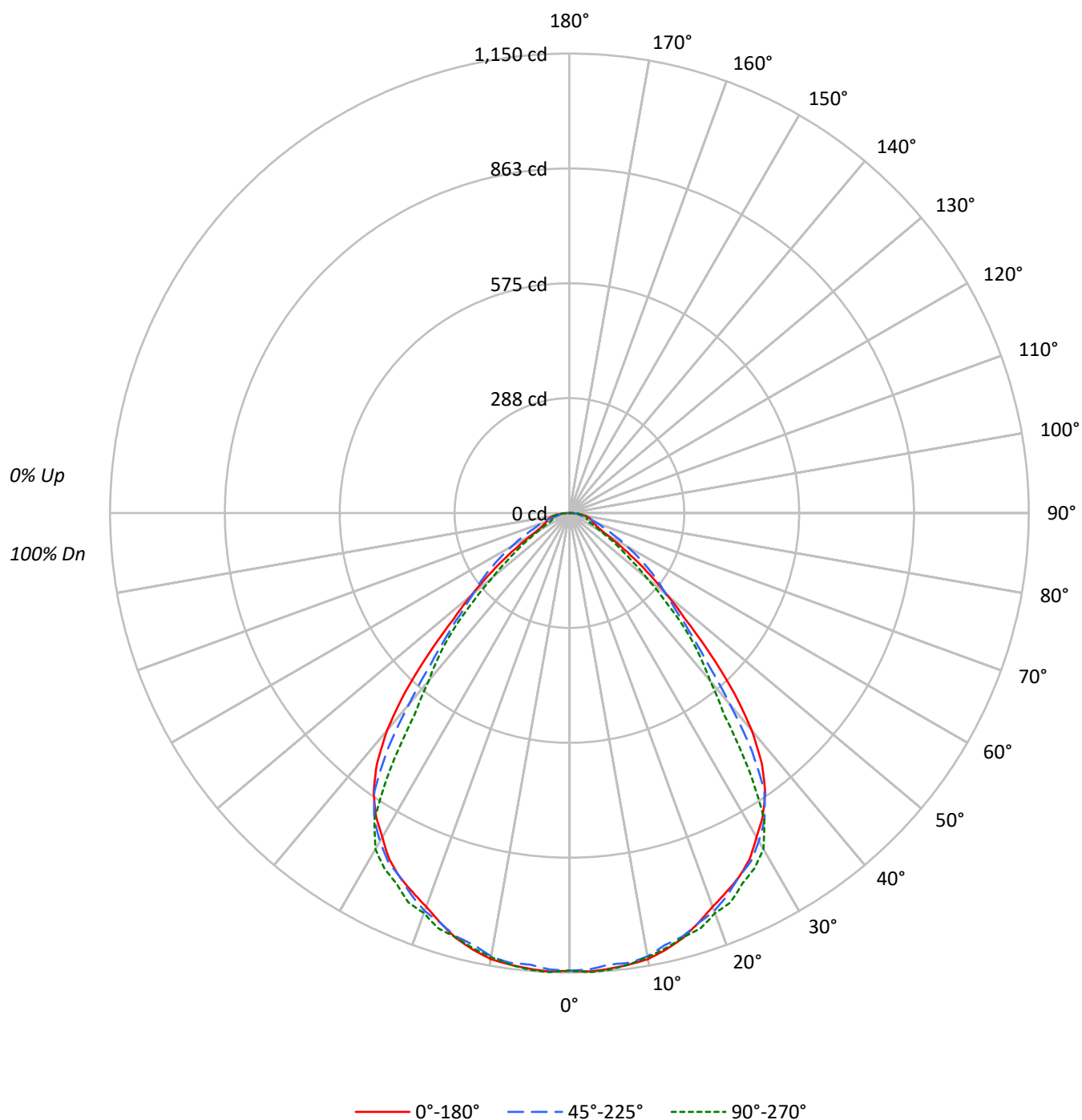
Input Watts (W): 18.693
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3082	3082	3082
5°	3093	3063	3099
10°	3098	3079	3084
15°	3066	3055	3062
20°	3002	3034	3051
25°	2984	2982	3039
30°	2911	2946	3018
35°	2807	2796	2569
40°	2492	2200	1926
45°	1891	1646	1558
50°	1342	1317	1057
55°	919	1124	726
60°	568	897	485
65°	468	691	351
70°	466	601	361
75°	558	430	481
80°	642	397	604
85°	608	701	685



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.7	5.0
10°-20°	310.2	14.4
20°-30°	466.5	21.7
30°-40°	508.5	23.6
40°-50°	356.1	16.5
50°-60°	201.6	9.4
60°-70°	110.3	5.1
70°-80°	66.8	3.1
80°-90°	25.3	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°	885.4	41.1
0°-40°	1393.9	64.7
0°-60°	1951.5	90.6
0°-90°	2154.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2154.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1145	1145	1145	1145	1145	
5°	1145	1143	1134	1147	1147	109
15°	1100	1098	1097	1112	1099	310
25°	1005	1007	1004	1028	1024	462
35°	854	851	851	808	782	527
45°	497	519	432	427	409	386
55°	196	234	240	238	155	179
65°	74	121	108	137	55	75
75°	54	77	41	81	46	56
85°	20	32	23	28	22	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1145.4	1145.4	1145.4	1145.4	1145.4
2.5°	1148.4	1146.9	1143.4	1150.3	1149.9
5°	1144.9	1142.9	1134.1	1147.4	1147.4
7.5°	1140.0	1135.1	1135.6	1142.9	1139.5
10°	1133.6	1125.2	1126.7	1128.6	1128.6
12.5°	1118.8	1110.9	1107.0	1113.4	1115.3
15°	1100.5	1097.6	1096.6	1112.4	1099.1
17.5°	1074.9	1081.3	1075.4	1088.2	1090.2
20°	1048.3	1060.6	1059.6	1068.5	1065.5
22.5°	1026.6	1034.5	1034.5	1045.3	1054.2
25°	1004.9	1006.9	1004.4	1027.6	1023.6
27.5°	976.8	975.3	983.2	995.0	1002.9
30°	936.8	937.3	948.2	964.0	971.4
32.5°	900.4	895.9	909.2	916.1	908.2
35°	854.5	850.6	851.0	807.7	782.0
37.5°	791.9	795.3	750.0	670.6	637.1
40°	709.5	716.4	626.2	567.0	548.3
42.5°	609.9	611.9	513.3	494.1	481.7
45°	497.0	518.7	432.4	427.0	409.3
47.5°	394.0	434.4	362.4	365.9	323.5
50°	320.5	360.9	314.6	316.1	252.5
52.5°	253.4	292.9	277.6	273.2	198.2
55°	195.8	234.2	239.6	237.7	154.8
57.5°	144.0	185.4	201.2	208.6	119.3
60°	105.5	151.4	166.7	181.5	90.2
62.5°	83.8	131.2	136.6	158.3	70.0
65°	73.5	120.8	108.5	137.1	55.2
67.5°	65.6	114.9	88.3	121.3	48.3
70°	59.2	103.5	76.4	108.5	45.9
72.5°	59.2	90.7	60.2	96.1	46.3
75°	53.7	77.4	41.4	81.4	46.3
77.5°	47.8	66.1	31.1	66.1	43.4
80°	41.4	51.8	25.6	50.8	39.0
82.5°	30.6	39.0	22.2	38.0	31.6
85°	19.7	32.0	22.7	27.6	22.2
87.5°	9.4	16.3	14.3	13.8	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)