

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: P291445

Luminaire Tested: **14GR-LD5-24-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291445
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-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: 1994.0 lumens
Efficiency: N/A
Efficacy: 107.2 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

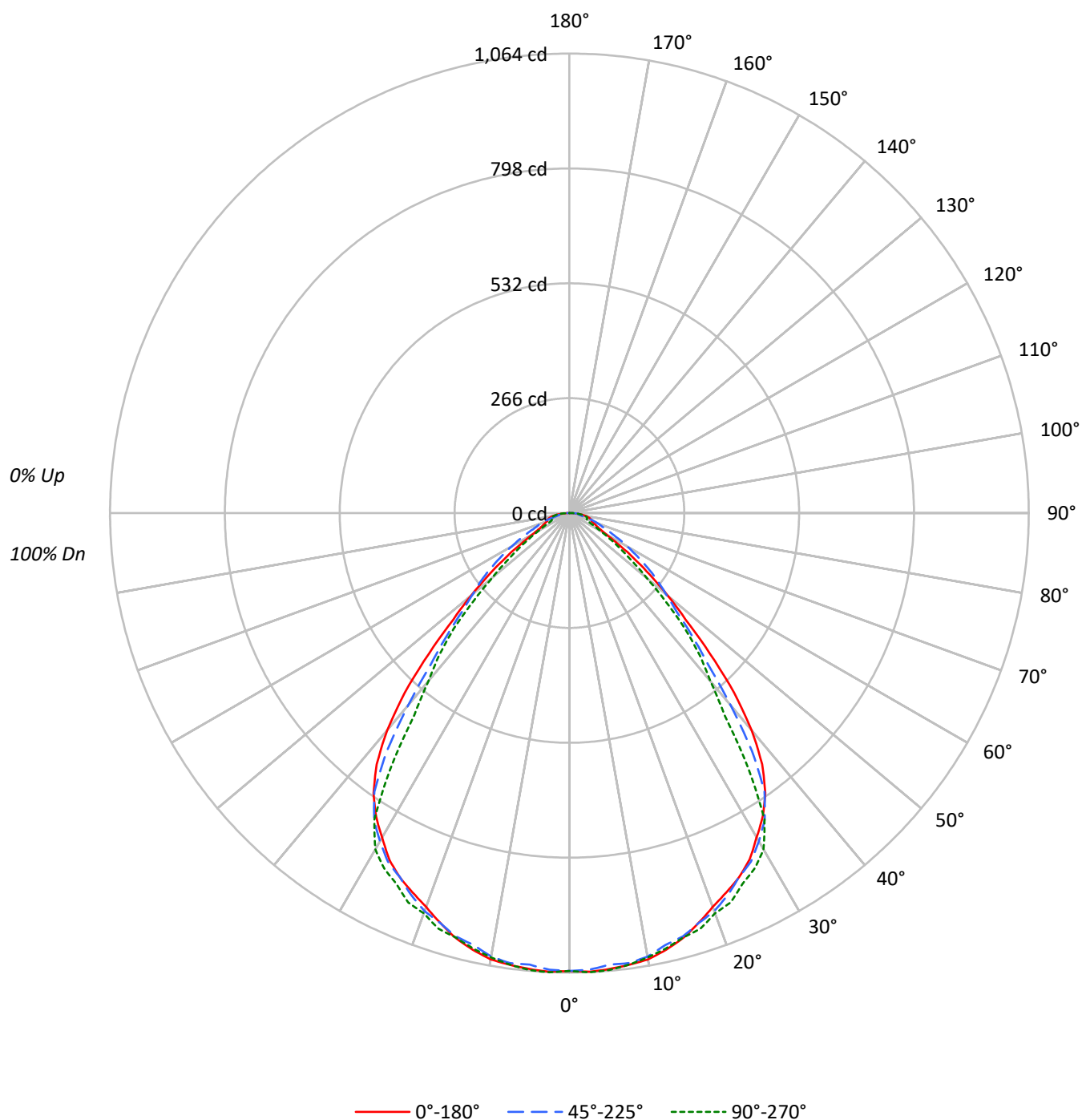
Input Watts (W): 18.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2853	2853	2853
5°	2863	2836	2869
10°	2867	2850	2855
15°	2838	2828	2834
20°	2779	2809	2825
25°	2762	2761	2814
30°	2695	2728	2794
35°	2598	2588	2378
40°	2307	2036	1783
45°	1751	1523	1442
50°	1242	1219	978
55°	850	1041	672
60°	526	830	449
65°	433	639	325
70°	431	556	334
75°	518	398	446
80°	594	367	559
85°	565	648	633



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.6	5.0
10°-20°	287.2	14.4
20°-30°	431.8	21.7
30°-40°	470.8	23.6
40°-50°	329.6	16.5
50°-60°	186.6	9.4
60°-70°	102.1	5.1
70°-80°	61.9	3.1
80°-90°	23.5	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°	819.6	41.1
0°-40°	1290.4	64.7
0°-60°	1806.6	90.6
0°-90°	1994.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1994.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1060	1060	1060	1060	1060	
5°	1060	1058	1050	1062	1062	101
15°	1019	1016	1015	1030	1017	287
25°	930	932	930	951	948	427
35°	791	787	788	748	724	487
45°	460	480	400	395	379	357
55°	181	217	222	220	143	166
65°	68	112	100	127	51	70
75°	50	72	38	75	43	52
85°	18	30	21	26	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1060.3	1060.3	1060.3	1060.3	1060.3
2.5°	1063.1	1061.7	1058.5	1064.9	1064.4
5°	1059.9	1058.0	1049.8	1062.2	1062.2
7.5°	1055.3	1050.7	1051.2	1058.0	1054.9
10°	1049.4	1041.6	1043.0	1044.8	1044.8
12.5°	1035.7	1028.4	1024.7	1030.7	1032.5
15°	1018.8	1016.1	1015.1	1029.7	1017.4
17.5°	995.1	1001.0	995.5	1007.4	1009.2
20°	970.4	981.8	980.9	989.1	986.4
22.5°	950.3	957.6	957.6	967.7	975.9
25°	930.2	932.1	929.8	951.2	947.6
27.5°	904.2	902.9	910.2	921.1	928.4
30°	867.3	867.7	877.8	892.4	899.2
32.5°	833.5	829.4	841.7	848.1	840.8
35°	791.0	787.4	787.8	747.7	723.9
37.5°	733.1	736.3	694.3	620.8	589.7
40°	656.8	663.2	579.7	524.9	507.6
42.5°	564.6	566.5	475.2	457.4	446.0
45°	460.1	480.2	400.3	395.3	378.9
47.5°	364.7	402.1	335.5	338.7	299.4
50°	296.7	334.1	291.2	292.6	233.7
52.5°	234.6	271.1	257.0	252.9	183.5
55°	181.2	216.8	221.8	220.0	143.3
57.5°	133.3	171.6	186.2	193.1	110.5
60°	97.7	140.1	154.3	168.0	83.5
62.5°	77.6	121.4	126.4	146.5	64.8
65°	68.0	111.8	100.4	126.9	51.1
67.5°	60.7	106.4	81.7	112.3	44.7
70°	54.8	95.9	70.7	100.4	42.4
72.5°	54.8	84.0	55.7	89.0	42.9
75°	49.8	71.7	38.3	75.3	42.9
77.5°	44.3	61.2	28.8	61.2	40.2
80°	38.3	47.9	23.7	47.0	36.1
82.5°	28.3	36.1	20.5	35.1	29.2
85°	18.3	29.7	21.0	25.6	20.5
87.5°	8.7	15.1	13.2	12.8	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)