

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: P291057

Luminaire Tested: **14GR-LD5-28-A-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291057
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33314)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-28-A-UNV-L93050-W2A1-U-3000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2265.0 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

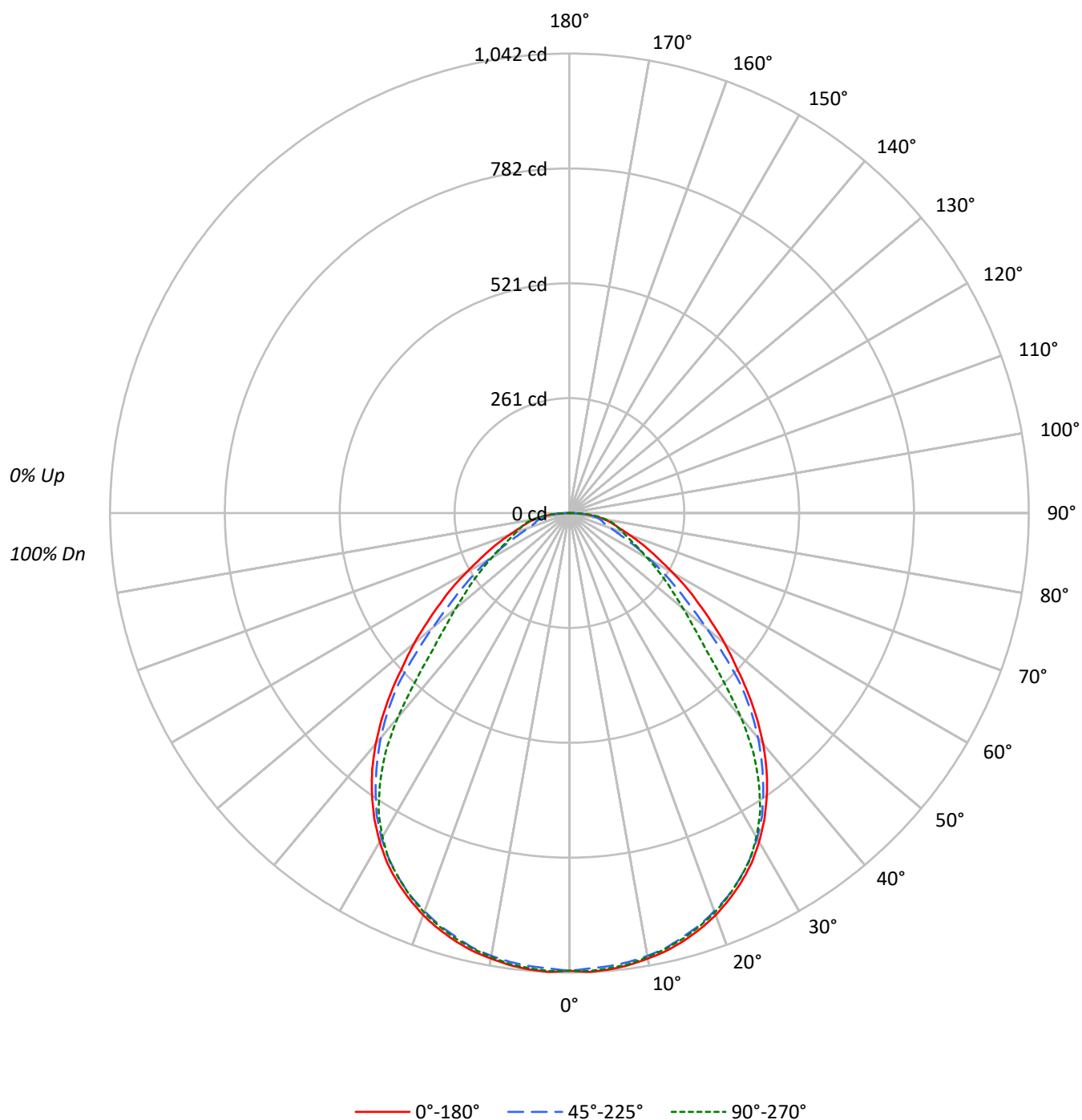
Input Watts (W): 22.692
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	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
1	110	106	102	98	107	103	100	97		99	96	94		95	93	91		92	90	88
2	101	94	88	83	99	92	86	82		88	84	80		85	81	78		82	79	76
3	93	84	76	71	91	82	75	70		79	74	69		77	72	68		74	70	66
4	86	75	67	61	84	74	67	61		72	65	60		69	64	59		67	62	58
5	80	68	60	54	78	67	59	53		65	58	53		63	57	52		61	56	52
6	74	62	54	48	72	61	53	47		59	52	47		58	51	47		56	51	46
7	69	57	48	43	67	56	48	43		54	47	42		53	47	42		52	46	42
8	65	52	44	38	63	51	44	38		50	43	38		49	43	38		48	42	38
9	61	48	40	35	59	47	40	35		46	39	35		45	39	35		44	39	34
10	57	44	37	32	56	44	37	32		43	36	32		42	36	32		41	36	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2793	2793	2793
5°	2807	2785	2799
10°	2803	2786	2793
15°	2798	2773	2782
20°	2778	2752	2760
25°	2741	2715	2716
30°	2674	2646	2635
35°	2565	2518	2461
40°	2401	2340	2129
45°	2168	2086	1664
50°	1923	1693	1407
55°	1678	1390	1241
60°	1455	1144	1096
65°	1276	918	1012
70°	1138	778	1018
75°	1110	820	1137
80°	1230	1035	1305
85°	1284	1105	1525



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.5	4.3
10°-20°	282.1	12.5
20°-30°	422.0	18.6
30°-40°	476.4	21.0
40°-50°	404.1	17.8
50°-60°	273.4	12.1
60°-70°	163.2	7.2
70°-80°	102.2	4.5
80°-90°	43.0	1.9
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°	802.6	35.4
0°-40°	1279.0	56.5
0°-60°	1956.6	86.4
0°-90°	2265.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2265.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1038	1038	1038	1038	1038	
5°	1039	1036	1031	1038	1036	99
15°	1004	1002	995	1002	998	283
25°	923	920	914	918	915	425
35°	781	775	766	760	749	486
45°	570	572	548	470	437	439
55°	358	341	296	265	265	322
65°	200	166	144	154	159	200
75°	107	95	79	104	109	115
85°	42	40	36	46	49	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1037.9	1037.9	1037.9	1037.9	1037.9
2.5°	1041.6	1038.4	1033.7	1040.0	1039.5
5°	1039.0	1035.8	1031.1	1038.4	1036.3
7.5°	1034.2	1031.6	1026.9	1033.7	1031.6
10°	1025.8	1023.7	1019.5	1025.3	1022.1
12.5°	1016.9	1015.3	1010.0	1015.3	1012.1
15°	1004.3	1002.2	995.3	1002.2	998.5
17.5°	988.5	985.8	980.1	985.8	982.7
20°	970.1	966.9	961.1	966.9	963.7
22.5°	948.0	945.3	940.1	945.3	941.1
25°	923.2	920.1	914.3	918.5	914.8
27.5°	894.8	890.6	885.4	888.5	886.4
30°	860.6	855.4	851.7	851.7	848.0
32.5°	823.3	819.6	813.3	809.6	804.9
35°	780.7	775.4	766.5	759.6	749.1
37.5°	734.9	728.6	717.6	700.2	686.0
40°	683.4	675.5	666.0	631.8	606.0
42.5°	628.1	626.5	610.2	551.8	516.1
45°	569.7	571.8	548.2	469.8	437.2
47.5°	510.8	518.2	475.0	398.2	381.4
50°	459.3	461.9	404.5	345.6	336.2
52.5°	406.1	401.9	345.1	304.1	297.2
55°	357.7	340.9	296.2	265.1	264.6
57.5°	315.1	284.1	253.0	229.9	232.5
60°	270.4	235.7	212.5	199.9	203.6
62.5°	230.9	197.8	177.3	173.6	179.9
65°	200.4	166.2	144.1	153.6	158.9
67.5°	171.5	142.6	117.3	139.9	142.0
70°	144.7	123.6	98.9	128.9	129.4
72.5°	122.6	109.4	85.7	116.8	118.4
75°	106.8	95.2	78.9	104.2	109.4
77.5°	93.6	81.5	73.1	90.0	98.9
80°	79.4	65.8	66.8	75.2	84.2
82.5°	61.0	51.0	53.1	62.1	68.4
85°	41.6	39.5	35.8	46.3	49.4
87.5°	22.1	21.0	18.4	26.3	24.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)