

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: P290666

Luminaire Tested: **14GR-LD5-28-F1-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P290666
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-7)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-28-F1-UNV-L93050-W2A1-U-3500K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2449.0 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.15 / 1.23
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

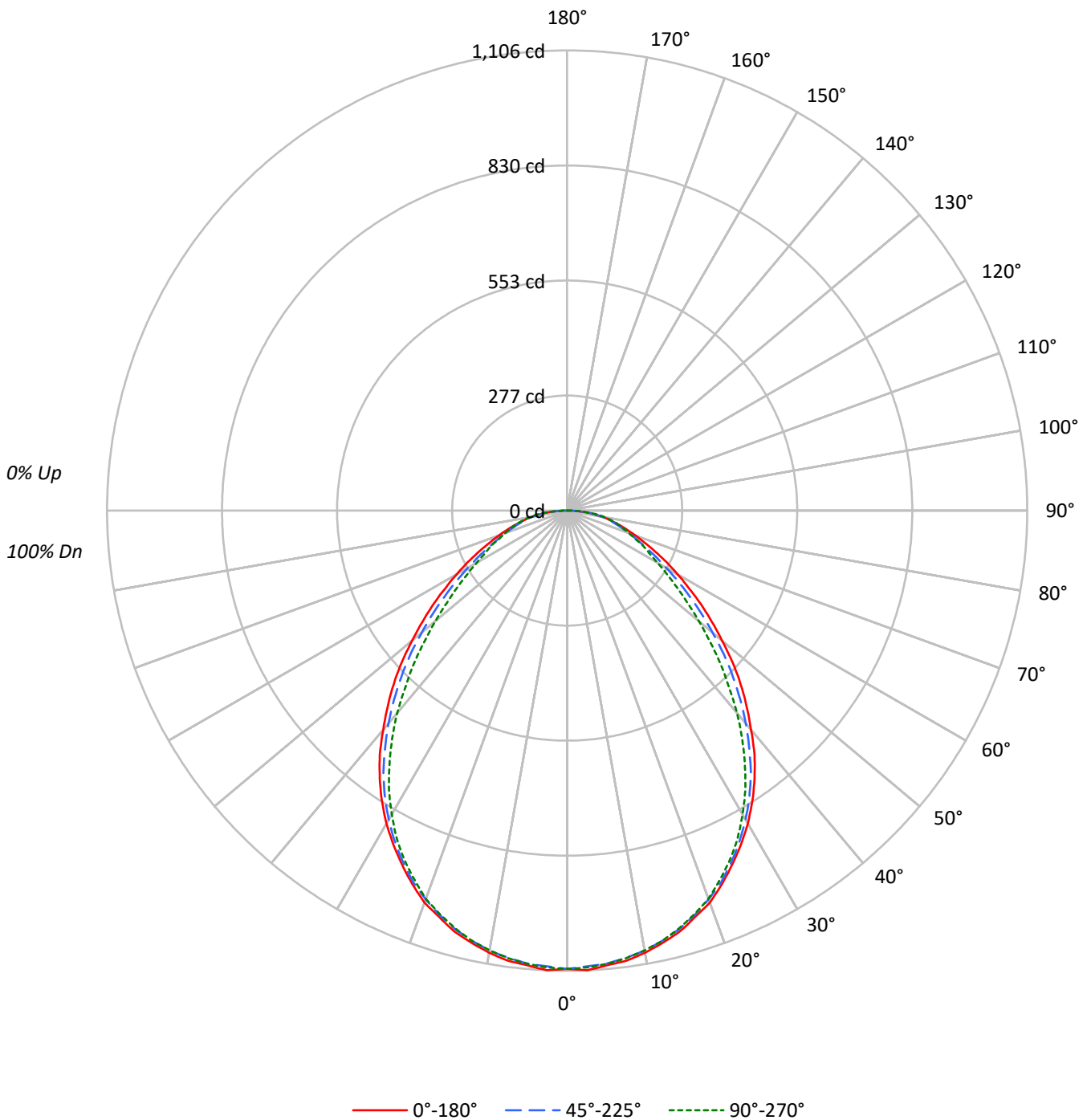
Input Watts (W): 22.692
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	66	59	83	73	65	59	70	64	58	68	62	57	66	61	57	55					55			
5	79	67	58	52	77	66	58	52	64	57	51	62	55	51	60	54	50	48					48			
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	55	49	45	43					43			
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	44	40	38					38			
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	41	36	34					34			
9	60	47	39	34	58	46	39	33	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	29					29			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2964	2964	2964
5°	2963	2952	2954
10°	2948	2934	2933
15°	2918	2901	2896
20°	2871	2847	2844
25°	2788	2770	2750
30°	2698	2665	2620
35°	2580	2530	2447
40°	2416	2349	2232
45°	2243	2143	1987
50°	2035	1908	1730
55°	1841	1686	1512
60°	1653	1477	1348
65°	1484	1319	1290
70°	1369	1228	1241
75°	1307	1231	1302
80°	1322	1314	1418
85°	1368	1352	1507



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.0	4.2
10°-20°	293.9	12.0
20°-30°	429.3	17.5
30°-40°	478.3	19.5
40°-50°	431.0	17.6
50°-60°	322.2	13.2
60°-70°	212.5	8.7
70°-80°	129.7	5.3
80°-90°	48.1	2.0
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°	827.2	33.8
0°-40°	1305.5	53.3
0°-60°	2058.6	84.1
0°-90°	2449.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2449.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1101	1101	1101	1101	1101	
5°	1097	1096	1093	1099	1094	104
15°	1048	1044	1041	1048	1040	295
25°	939	936	933	935	926	432
35°	785	779	770	757	745	490
45°	589	583	563	537	522	454
55°	392	386	359	330	322	351
65°	233	226	207	199	203	234
75°	126	124	118	122	125	134
85°	44	43	44	48	49	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1101.4	1101.4	1101.4	1101.4	1101.4
2.5°	1105.9	1100.8	1096.3	1103.1	1099.1
5°	1096.9	1095.8	1093.0	1098.6	1093.5
7.5°	1091.3	1087.3	1084.0	1090.7	1085.1
10°	1078.9	1076.7	1073.9	1079.5	1073.3
12.5°	1063.8	1061.5	1058.7	1065.5	1058.7
15°	1047.5	1043.6	1041.3	1047.5	1039.6
17.5°	1023.9	1022.2	1018.9	1025.0	1017.2
20°	1002.6	996.4	994.2	998.6	993.0
22.5°	971.7	967.2	966.7	969.5	959.9
25°	939.1	935.8	933.0	934.7	926.2
27.5°	904.9	900.4	897.0	896.5	887.5
30°	868.4	862.8	857.7	853.3	843.2
32.5°	828.6	821.8	815.1	807.8	797.1
35°	785.3	778.6	770.2	756.7	744.9
37.5°	739.9	732.0	718.5	702.8	691.0
40°	687.7	683.7	668.6	648.4	635.5
42.5°	638.8	634.3	615.2	592.8	575.4
45°	589.4	583.2	563.0	537.2	522.1
47.5°	538.9	532.7	510.3	478.3	464.8
50°	486.1	482.8	455.8	426.6	413.2
52.5°	437.9	433.9	406.4	377.2	364.9
55°	392.4	386.2	359.3	329.5	322.2
57.5°	346.9	340.2	314.9	289.7	284.6
60°	307.1	298.6	274.5	254.9	250.4
62.5°	269.5	259.9	239.7	224.5	222.3
65°	233.0	225.7	207.1	198.7	202.6
67.5°	201.5	194.2	180.8	177.4	176.3
70°	174.0	167.3	156.1	157.2	157.7
72.5°	148.8	144.8	136.4	139.2	141.5
75°	125.7	123.5	118.4	122.4	125.2
77.5°	105.0	103.3	101.0	104.4	108.9
80°	85.3	84.2	84.8	87.0	91.5
82.5°	65.7	63.4	65.1	69.6	72.4
85°	44.3	42.7	43.8	48.3	48.8
87.5°	20.8	20.8	20.2	23.6	23.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)