

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: P290670

Luminaire Tested: **14GR-LD5-32-F1-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P290670
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-LD5-32-F1-UNV-L93050-W2A1-U-3000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2544.0 lumens
Efficiency: N/A
Efficacy: 97.0 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

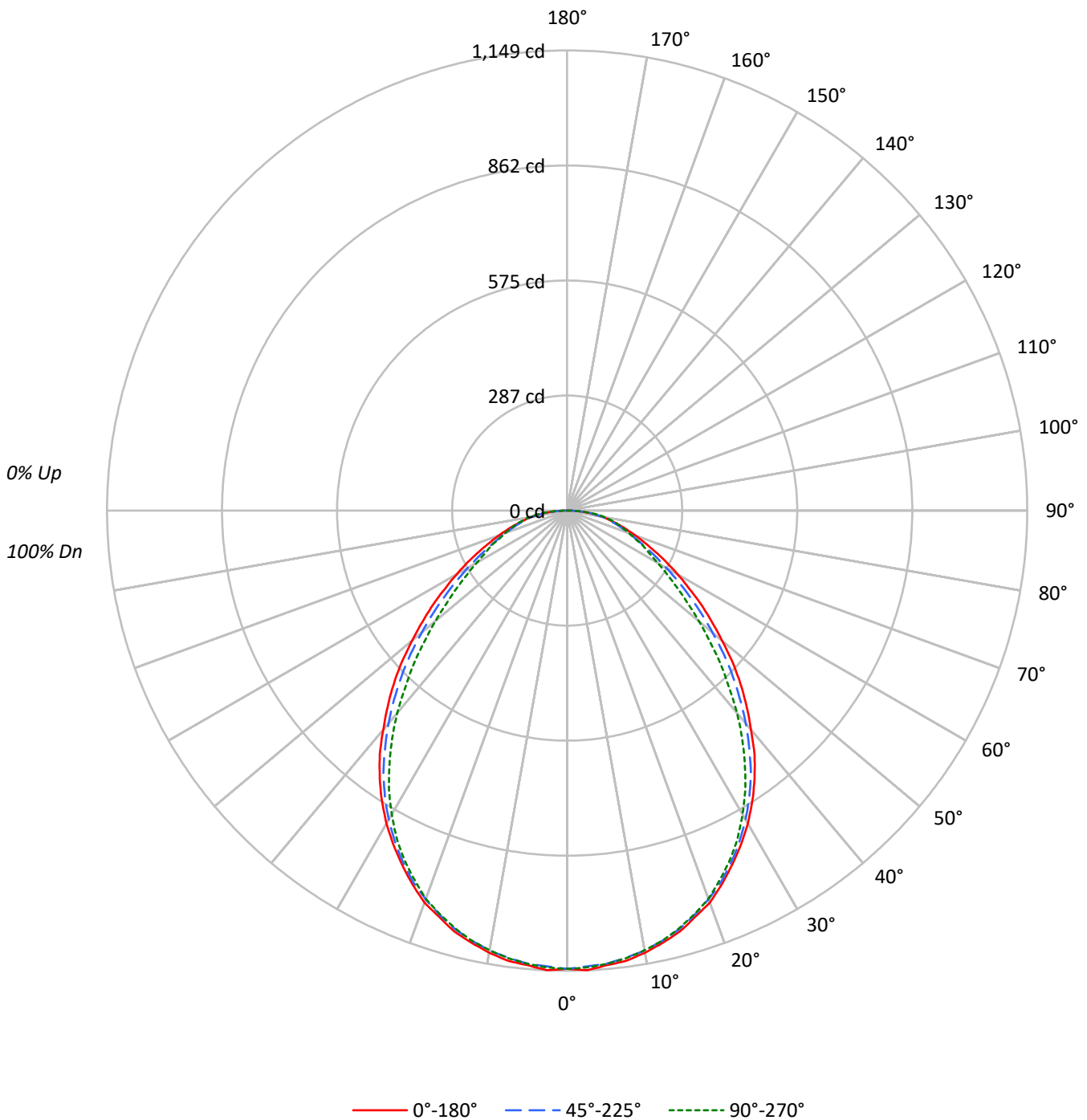
Input Watts (W): 26.226
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3079	3079	3079
5°	3078	3067	3068
10°	3063	3048	3046
15°	3031	3014	3009
20°	2983	2957	2954
25°	2897	2878	2857
30°	2803	2769	2722
35°	2680	2628	2542
40°	2509	2440	2319
45°	2330	2226	2064
50°	2114	1982	1797
55°	1912	1751	1570
60°	1717	1535	1400
65°	1541	1370	1340
70°	1423	1275	1290
75°	1358	1279	1352
80°	1373	1365	1474
85°	1423	1405	1565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.0	4.2
10°-20°	305.3	12.0
20°-30°	445.9	17.5
30°-40°	496.9	19.5
40°-50°	447.7	17.6
50°-60°	334.7	13.2
60°-70°	220.8	8.7
70°-80°	134.8	5.3
80°-90°	50.0	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°	859.3	33.8
0°-40°	1356.1	53.3
0°-60°	2138.5	84.1
0°-90°	2544.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2544.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1144	1144	1144	1144	1144	
5°	1139	1138	1135	1141	1136	108
15°	1088	1084	1082	1088	1080	306
25°	976	972	969	971	962	449
35°	816	809	800	786	774	509
45°	612	606	585	558	542	471
55°	408	401	373	342	335	365
65°	242	234	215	206	210	243
75°	131	128	123	127	130	140
85°	46	44	46	50	51	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1144.1	1144.1	1144.1	1144.1	1144.1
2.5°	1148.8	1143.5	1138.9	1145.9	1141.8
5°	1139.4	1138.3	1135.4	1141.2	1135.9
7.5°	1133.6	1129.5	1126.0	1133.0	1127.2
10°	1120.8	1118.4	1115.5	1121.4	1114.9
12.5°	1105.0	1102.7	1099.8	1106.8	1099.8
15°	1088.1	1084.0	1081.7	1088.1	1080.0
17.5°	1063.6	1061.9	1058.4	1064.8	1056.6
20°	1041.5	1035.1	1032.7	1037.4	1031.6
22.5°	1009.4	1004.7	1004.1	1007.1	997.2
25°	975.6	972.1	969.2	970.9	962.2
27.5°	940.0	935.3	931.8	931.3	921.9
30°	902.1	896.3	891.0	886.4	875.9
32.5°	860.7	853.7	846.7	839.1	828.0
35°	815.8	808.8	800.1	786.1	773.8
37.5°	768.6	760.4	746.4	730.1	717.8
40°	714.3	710.3	694.5	673.5	660.1
42.5°	663.6	658.9	639.1	615.8	597.7
45°	612.3	605.9	584.9	558.1	542.3
47.5°	559.8	553.4	530.1	496.8	482.8
50°	505.0	501.5	473.5	443.2	429.2
52.5°	454.8	450.8	422.2	391.9	379.0
55°	407.6	401.2	373.2	342.3	334.7
57.5°	360.4	353.4	327.1	300.9	295.6
60°	319.0	310.2	285.2	264.7	260.1
62.5°	279.9	270.0	249.0	233.3	230.9
65°	242.0	234.4	215.2	206.4	210.5
67.5°	209.3	201.8	187.8	184.3	183.1
70°	180.8	173.8	162.1	163.3	163.9
72.5°	154.5	150.4	141.7	144.6	146.9
75°	130.6	128.3	123.0	127.1	130.0
77.5°	109.0	107.3	105.0	108.5	113.1
80°	88.6	87.5	88.1	90.4	95.1
82.5°	68.2	65.9	67.6	72.3	75.2
85°	46.1	44.3	45.5	50.1	50.7
87.5°	21.6	21.6	21.0	24.5	24.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)