

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: FAIL-SAFE

Report Number: P202463

Luminaire Tested: **GRW-12-4-LD4-32-35-A12125**

Issue Date: 3/3/2020



**Test Information**

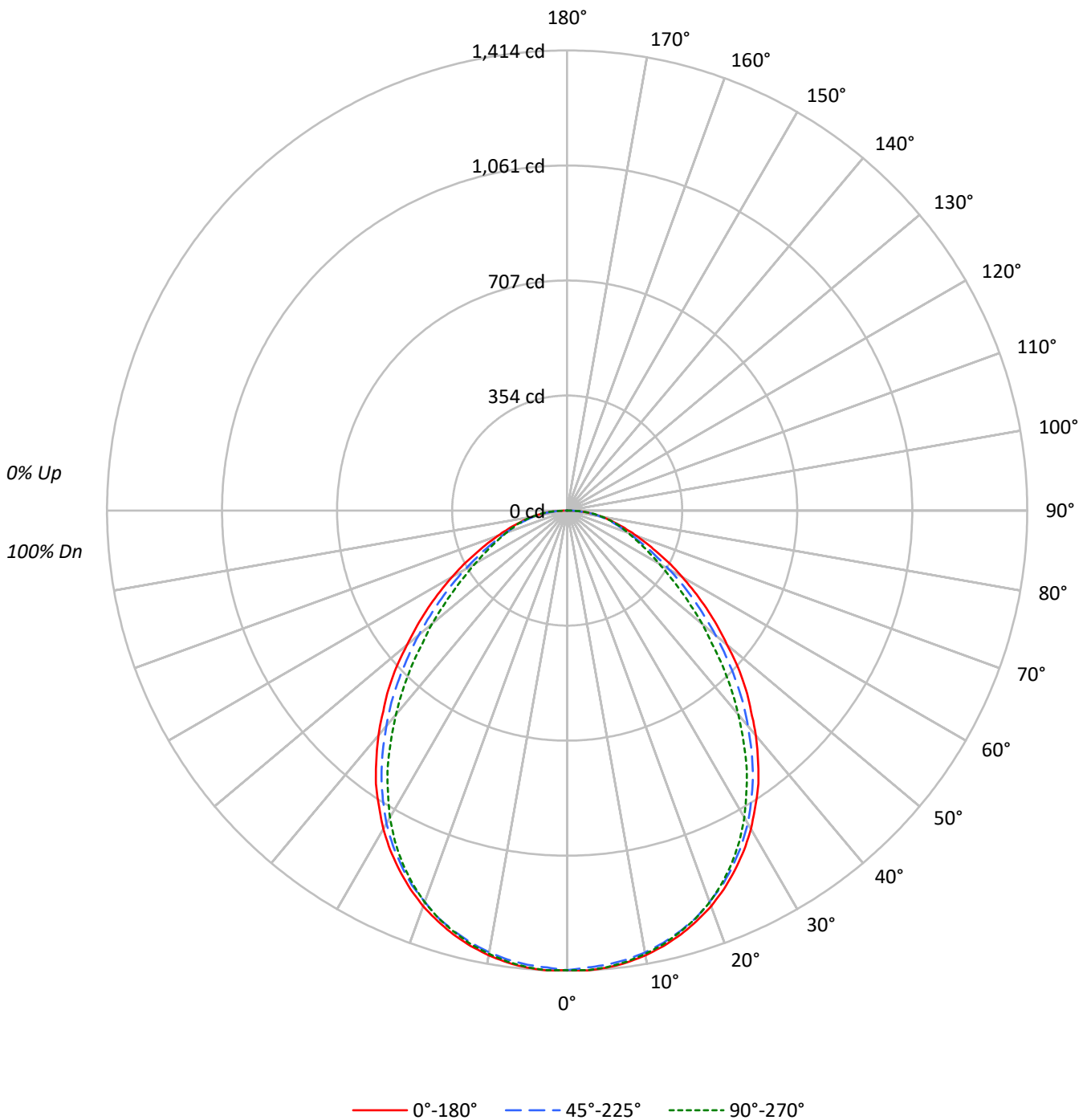
Test Method: LM-79-08  
Report Number: P202463  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: GRW-12-4-LD4-32-35-A12125  
Description: FAILSAFE 1X4 LED TROFFER WITH A12 LENS  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33313)  
Light Source: -  
Ballast/Driver: (1) OSRAM SYLVANIA ELECTRONIC DRIVER  
30 MIN

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3169.8 lumens  
Efficiency: N/A  
Efficacy: 98.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.16 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 3.83' x L: 0.83' x H: 0.1')  
CIE Type: Direct  
  
Input Watts (W): 32.12  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	88	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	58	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	60	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	51	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	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4758	4758	4758
5°	4719	4696	4753
10°	4649	4633	4711
15°	4559	4544	4644
20°	4445	4423	4548
25°	4293	4272	4395
30°	4110	4076	4175
35°	3888	3816	3886
40°	3607	3496	3523
45°	3305	3153	3138
50°	2945	2778	2758
55°	2615	2411	2389
60°	2275	2067	2106
65°	1949	1777	1916
70°	1676	1542	1826
75°	1439	1392	1845
80°	1246	1257	1836
85°	921	936	1796



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.5	4.2
10°-20°	378.5	11.9
20°-30°	555.0	17.5
30°-40°	619.5	19.5
40°-50°	560.8	17.7
50°-60°	423.5	13.4
60°-70°	276.8	8.7
70°-80°	162.6	5.1
80°-90°	59.5	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°	1067.1	33.7
0°-40°	1686.5	53.2
0°-60°	2670.9	84.3
0°-90°	3169.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3169.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1412	1412	1412	1412	1412	
5°	1410	1407	1401	1409	1408	134
15°	1349	1347	1338	1346	1341	380
25°	1219	1215	1204	1202	1196	561
35°	1024	1016	995	972	962	638
45°	777	765	730	690	676	597
55°	522	510	471	434	422	467
65°	307	298	272	257	254	308
75°	160	156	148	151	156	172
85°	56	54	53	60	60	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1412.1	1412.1	1412.1	1412.1	1412.1
2.5°	1414.3	1412.1	1405.4	1414.3	1413.6
5°	1409.9	1406.9	1401.0	1409.1	1408.4
7.5°	1401.0	1398.0	1392.0	1399.5	1398.0
10°	1387.6	1384.6	1378.6	1386.8	1383.1
12.5°	1370.4	1367.5	1360.8	1368.2	1365.2
15°	1348.9	1346.6	1338.5	1345.9	1340.7
17.5°	1322.8	1319.1	1313.2	1317.6	1313.9
20°	1293.8	1289.4	1279.7	1284.1	1280.4
22.5°	1258.8	1252.9	1246.2	1246.2	1241.0
25°	1219.4	1215.0	1204.5	1202.3	1196.4
27.5°	1177.0	1173.3	1159.9	1156.2	1145.8
30°	1129.4	1124.2	1110.0	1098.1	1089.2
32.5°	1076.6	1072.8	1053.5	1037.9	1025.2
35°	1024.5	1015.6	994.7	972.4	962.0
37.5°	963.5	956.8	930.7	903.2	889.1
40°	902.5	894.3	863.8	833.3	818.4
42.5°	836.3	828.8	799.8	763.3	747.7
45°	776.7	764.8	729.9	690.4	675.6
47.5°	711.3	698.6	661.4	619.8	602.6
50°	642.1	633.9	595.2	555.0	542.4
52.5°	580.3	567.7	531.2	491.8	478.4
55°	521.5	509.6	471.0	433.8	421.8
57.5°	462.8	449.4	415.9	382.4	370.5
60°	407.7	394.3	361.6	334.1	326.6
62.5°	357.9	343.0	314.0	292.4	287.2
65°	307.3	297.6	272.3	256.7	253.7
67.5°	264.9	253.0	232.9	225.4	223.9
70°	226.2	218.0	200.9	198.6	198.6
72.5°	191.2	184.5	171.9	173.4	175.6
75°	160.0	155.5	148.1	151.0	155.5
77.5°	133.2	128.7	124.2	128.7	131.7
80°	107.9	103.4	102.7	106.4	108.6
82.5°	81.1	77.4	78.1	84.1	86.3
85°	56.5	54.3	52.8	59.5	60.3
87.5°	29.0	27.5	26.8	32.0	30.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)