

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: P551306

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-93-85-ED1D**

Issue Date: 7/9/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P551306  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-248-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FCC-X-2-LD4-2HI-35-UNV-93-85-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

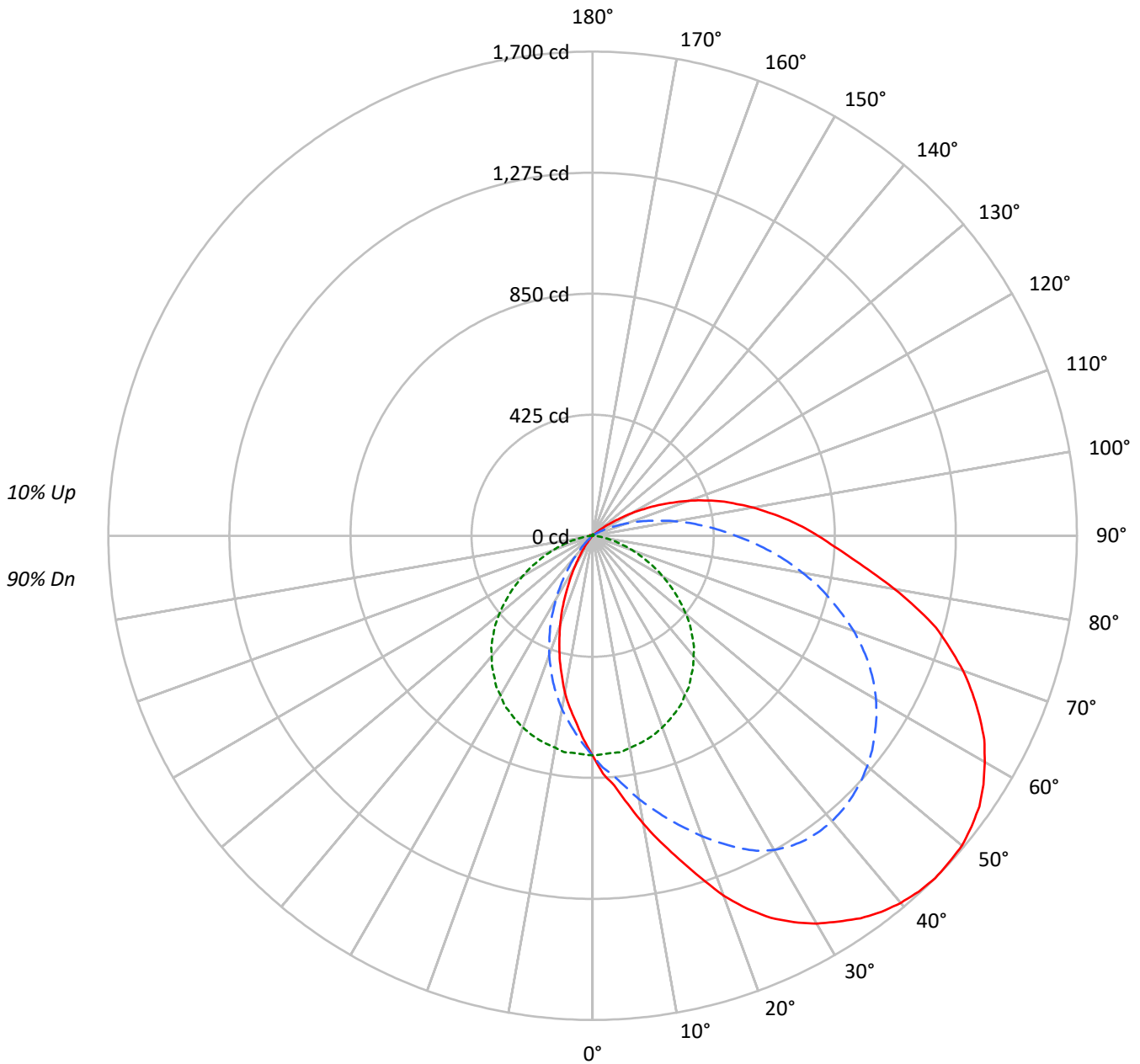
Lumens per Lamp: N/A  
Luminaire Lumens: 3811.9 lumens  
Efficiency: N/A  
Efficacy: 88.0 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
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

TEST NUMBER: P551306

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-93-85-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P551306

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	0
RCR																					
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

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

	0°	90°	180°
0°	8300	8300	8300
5°	9111	8179	6823
10°	10311	8078	5624
15°	11555	7975	4382
20°	13032	7846	3227
25°	14257	7694	2119
30°	15168	7492	1194
35°	15956	7275	526
40°	16655	7007	127
45°	17255	6672	0
50°	17759	6228	0
55°	18143	5662	0
60°	18335	5006	0
65°	18412	4262	0
70°	18349	3474	0
75°	18117	2564	15
80°	17383	1567	79
85°	16801	747	109



TEST NUMBER: P551306

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-93-85-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.9	1.9
10°-20°	221.2	5.8
20°-30°	358.1	9.4
30°-40°	460.0	12.1
40°-50°	520.8	13.7
50°-60°	539.5	14.2
60°-70°	508.8	13.3
70°-80°	426.4	11.2
80°-90°	309.1	8.1
90°-100°	203.1	5.3
100°-110°	117.3	3.1
110°-120°	51.7	1.4
120°-130°	14.0	0.4
130°-140°	3.2	0.1
140°-150°	2.1	0.1
150°-160°	1.5	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	653.1	17.1
0°-40°	1113.2	29.2
0°-60°	2173.5	57.0
0°-90°	3417.8	89.7
90°-120°	372.2	9.8
90°-150°	391.5	10.3
90°-180°	394.0	10.3
0°-180°	3811.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	771	771	771	771	771	
5°	880	845	765	694	659	89
15°	1176	1031	740	534	446	339
25°	1480	1210	686	352	220	684
35°	1639	1304	602	171	54	1028
45°	1700	1291	493	39	0	1313
55°	1657	1210	356	0	0	1480
65°	1498	1071	212	0	0	1482
75°	1248	864	90	1	1	1309
85°	914	626	15	4	6	780
90°	792	502	4	6	7	434
95°	680	392	2	7	9	533
105°	468	203	2	5	8	493
115°	254	67	3	3	5	255
125°	76	9	4	3	4	76
135°	4	3	5	4	3	7
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	5	3	1	0
180°	3	3	3	3	3	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	771.1	771.1	771.1	771.1	771.1	771.1	771.1	771.1	771.1	771.1	771.1
2.5°	835.9	834.9	832.0	827.1	820.2	808.4	798.6	789.7	778.0	768.1	749.5
5°	880.1	875.2	871.3	866.4	850.6	839.8	822.2	802.5	783.8	765.2	727.9
7.5°	950.8	943.0	937.1	923.3	901.7	877.2	849.7	831.0	818.2	766.2	702.3
10°	1026.5	1019.6	1007.8	983.2	956.7	921.4	882.1	837.9	798.6	755.4	679.7
12.5°	1101.1	1091.3	1074.6	1043.2	1005.8	961.6	907.6	855.6	799.6	748.5	653.2
15°	1175.8	1165.0	1147.3	1109.0	1059.9	1001.9	936.1	870.3	804.5	739.6	625.7
17.5°	1257.3	1242.6	1216.0	1172.8	1110.9	1039.2	961.6	882.1	802.5	728.8	596.2
20°	1344.7	1324.1	1295.6	1237.7	1165.0	1080.5	987.2	893.9	801.5	716.1	562.8
22.5°	1417.4	1396.8	1365.3	1305.4	1218.0	1114.9	1008.8	901.7	797.6	701.3	531.4
25°	1480.3	1463.6	1429.2	1360.4	1268.1	1151.2	1029.4	907.6	791.7	685.6	498.0
27.5°	1529.4	1513.7	1475.4	1404.6	1310.3	1183.6	1045.1	910.6	783.8	669.9	463.6
30°	1572.6	1556.9	1510.7	1438.0	1338.8	1209.2	1060.8	911.5	774.0	646.3	426.3
32.5°	1606.0	1591.3	1544.1	1466.5	1358.5	1226.8	1069.7	910.6	761.3	629.6	386.0
35°	1639.4	1624.7	1569.7	1487.1	1373.2	1234.7	1076.6	905.6	745.5	602.1	347.7
37.5°	1664.9	1648.2	1592.2	1500.9	1380.1	1236.7	1075.6	898.8	728.8	579.5	309.4
40°	1682.6	1664.9	1605.0	1508.8	1382.0	1233.7	1067.7	887.0	709.2	551.0	269.1
42.5°	1694.4	1674.8	1610.9	1520.5	1378.1	1225.9	1055.9	872.2	687.6	526.5	230.8
45°	1700.3	1679.7	1611.9	1510.7	1371.2	1211.1	1038.3	853.6	664.0	493.1	192.5
47.5°	1697.3	1674.8	1607.0	1499.9	1358.5	1195.4	1018.6	831.0	635.5	463.6	156.2
50°	1692.4	1668.9	1596.2	1486.2	1340.8	1175.8	997.0	803.5	606.1	427.3	123.8
52.5°	1676.7	1653.1	1584.4	1466.5	1320.2	1153.2	967.5	775.0	574.6	391.9	94.3
55°	1657.1	1635.5	1563.8	1448.8	1293.6	1125.7	940.0	744.6	544.2	355.6	67.8
57.5°	1626.6	1607.0	1538.2	1420.4	1267.1	1095.2	909.6	711.2	505.9	319.2	47.1
60°	1589.3	1569.7	1502.9	1387.9	1236.7	1060.8	876.2	676.8	471.5	282.9	29.5
62.5°	1550.0	1531.3	1461.6	1347.7	1198.4	1024.5	839.8	642.4	435.1	249.5	17.7
65°	1498.0	1480.3	1417.4	1299.5	1156.1	985.2	799.6	601.1	397.8	212.2	9.8
67.5°	1442.9	1427.2	1363.4	1255.3	1107.0	942.0	758.3	560.9	358.5	179.8	4.9
70°	1384.0	1364.4	1305.4	1195.4	1056.9	892.9	713.1	519.6	321.2	148.3	0.0
72.5°	1315.2	1300.5	1243.5	1139.4	999.0	840.8	667.0	474.4	279.9	117.9	1.0
75°	1248.5	1229.8	1177.7	1079.5	942.0	785.8	615.9	432.2	239.7	90.4	1.0
77.5°	1162.0	1156.1	1107.0	1011.7	888.0	732.8	559.9	381.1	201.4	64.8	1.0
80°	1075.6	1069.7	1031.4	944.0	825.1	669.9	507.8	333.0	164.0	43.2	1.0
82.5°	990.1	982.3	945.9	873.2	761.3	616.9	453.8	284.9	129.7	26.5	1.0
85°	913.5	903.7	864.4	797.6	695.4	556.9	397.8	237.7	96.3	14.7	2.0
87.5°	847.7	840.8	797.6	728.8	628.6	501.0	348.7	192.5	67.8	6.9	2.9
90°	791.7	777.0	738.7	666.0	565.8	439.1	296.6	154.2	45.2	3.9	3.9
92.5°	736.7	723.9	681.7	607.0	509.8	386.0	246.5	117.9	28.5	2.0	4.9
95°	679.7	666.0	624.7	556.0	452.8	332.0	202.3	86.4	15.7	2.0	4.9
97.5°	623.7	611.0	567.7	499.0	401.7	284.9	160.1	60.9	7.9	2.0	3.9
100°	571.7	556.9	517.7	448.9	350.7	237.7	123.8	39.3	4.9	2.0	3.9
102.5°	516.7	504.9	464.6	397.8	297.6	193.5	92.3	24.6	2.0	2.0	2.9
105°	467.6	452.8	413.5	344.8	253.4	152.3	64.8	14.7	2.0	2.0	2.9



TEST NUMBER: P551306

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-93-85-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	304.5	292.7	258.3	200.4	128.7	59.9	17.7	2.9	2.9	2.9	2.9
115°	254.4	236.7	206.3	155.2	95.3	39.3	8.8	2.9	2.9	2.9	2.9
117.5°	203.3	188.6	167.0	117.9	62.9	25.5	4.9	2.9	2.9	2.9	2.9
120°	159.1	145.4	120.8	81.5	42.2	14.7	2.0	2.9	2.9	2.9	2.9
122.5°	113.9	103.1	81.5	53.0	25.5	6.9	2.9	2.9	3.9	3.9	2.9
125°	75.6	69.7	54.0	32.4	15.7	2.9	2.9	2.9	3.9	3.9	2.9
127.5°	49.1	44.2	31.4	18.7	6.9	2.9	2.9	3.9	3.9	3.9	2.9
130°	27.5	24.6	18.7	10.8	2.9	2.9	2.9	3.9	3.9	3.9	2.9
132.5°	15.7	14.7	9.8	2.0	2.9	2.9	2.9	3.9	3.9	3.9	3.9
135°	3.9	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	3.9
137.5°	1.0	1.0	2.0	2.0	2.9	2.9	3.9	4.9	4.9	4.9	3.9
140°	1.0	1.0	2.0	2.9	2.9	2.9	3.9	4.9	4.9	4.9	3.9
142.5°	1.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	3.9	3.9
145°	1.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	3.9	3.9	3.9
147.5°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	3.9	3.9
150°	1.0	2.0	2.0	2.9	3.9	3.9	3.9	4.9	3.9	3.9	3.9
152.5°	1.0	2.0	2.0	2.9	3.9	3.9	3.9	4.9	3.9	3.9	3.9
155°	2.0	2.0	2.0	2.9	3.9	3.9	3.9	4.9	3.9	3.9	4.9
157.5°	2.0	2.0	2.0	2.9	3.9	3.9	3.9	4.9	3.9	3.9	4.9
160°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	3.9	3.9	3.9	3.9
162.5°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	3.9	3.9	3.9	3.9
165°	2.0	2.0	2.0	2.0	2.9	2.9	3.9	3.9	3.9	3.9	3.9
167.5°	2.0	2.0	2.0	2.9	2.9	2.9	3.9	3.9	3.9	3.9	3.9
170°	2.0	2.0	2.0	2.9	2.9	2.9	3.9	4.9	4.9	4.9	4.9
172.5°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	4.9	4.9
175°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	4.9	4.9
177.5°	1.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	4.9	3.9
180°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9



TEST NUMBER: P551306

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-93-85-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	771.1	771.1	771.1
2.5°	733.8	720.0	716.1
5°	694.5	671.9	659.1
7.5°	655.2	624.7	610.0
10°	618.8	575.6	559.9
12.5°	575.6	525.5	501.0
15°	534.4	469.5	445.9
17.5°	488.2	415.5	388.0
20°	445.0	361.5	333.0
22.5°	395.9	308.4	277.0
25°	351.6	255.4	220.0
27.5°	302.5	201.4	170.9
30°	256.4	154.2	123.8
32.5°	212.2	113.0	85.5
35°	170.9	76.6	54.0
37.5°	131.6	47.1	27.5
40°	95.3	24.6	12.8
42.5°	63.8	11.8	6.9
45°	39.3	5.9	0.0
47.5°	22.6	0.0	0.0
50°	11.8	0.0	0.0
52.5°	4.9	0.0	0.0
55°	0.0	0.0	0.0
57.5°	0.0	0.0	0.0
60°	0.0	0.0	0.0
62.5°	0.0	0.0	0.0
65°	0.0	0.0	0.0
67.5°	0.0	0.0	0.0
70°	0.0	0.0	0.0
72.5°	0.0	0.0	0.0
75°	1.0	1.0	1.0
77.5°	1.0	2.0	2.9
80°	2.0	3.9	4.9
82.5°	3.9	4.9	4.9
85°	3.9	4.9	5.9
87.5°	4.9	5.9	6.9
90°	5.9	6.9	6.9
92.5°	5.9	7.9	7.9
95°	6.9	7.9	8.8
97.5°	7.9	8.8	8.8
100°	6.9	8.8	9.8
102.5°	5.9	8.8	8.8
105°	4.9	6.9	7.9





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CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-93-85-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.9	4.9	4.9
115°	2.9	3.9	4.9
117.5°	2.9	3.9	3.9
120°	2.9	2.9	3.9
122.5°	2.9	2.9	3.9
125°	2.9	2.9	3.9
127.5°	3.9	2.9	2.9
130°	2.9	2.9	2.9
132.5°	3.9	2.9	2.9
135°	3.9	2.9	2.9
137.5°	3.9	2.9	2.9
140°	3.9	2.9	2.9
142.5°	3.9	2.9	2.9
145°	2.9	2.9	2.9
147.5°	2.9	2.9	2.9
150°	2.9	2.9	2.0
152.5°	2.9	2.0	2.0
155°	2.9	2.0	1.0
157.5°	3.9	2.0	1.0
160°	2.9	2.0	1.0
162.5°	2.9	2.0	1.0
165°	2.9	2.0	0.0
167.5°	2.9	2.0	1.0
170°	2.9	2.0	1.0
172.5°	2.9	2.0	1.0
175°	2.9	1.0	1.0
177.5°	2.9	1.0	1.0
180°	2.9	2.9	2.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180°    - - 45°-225°    - - - - 90°-270°







107.5°	412.6	400.8	361.5	296.6	207.3	115.9	43.2	7.9	2.0	2.9	2.9
110°	359.5	349.7	309.4	246.5	167.0	86.4	28.5	4.9	2.9	2.9	2.9







107.5°	3.9	5.9	6.9
110°	3.9	4.9	5.9



(END OF REPORT)