

Scaled data based on original data using  
LM-66-11 Electrical and Photometric Measurements of Single-Ended Compact  
Fluorescent Lamps

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: SHAPER

Report Number: 19168A

Luminaire Tested: **687-12-CF2/26**

Issue Date: 3/3/2020

**Test Information**

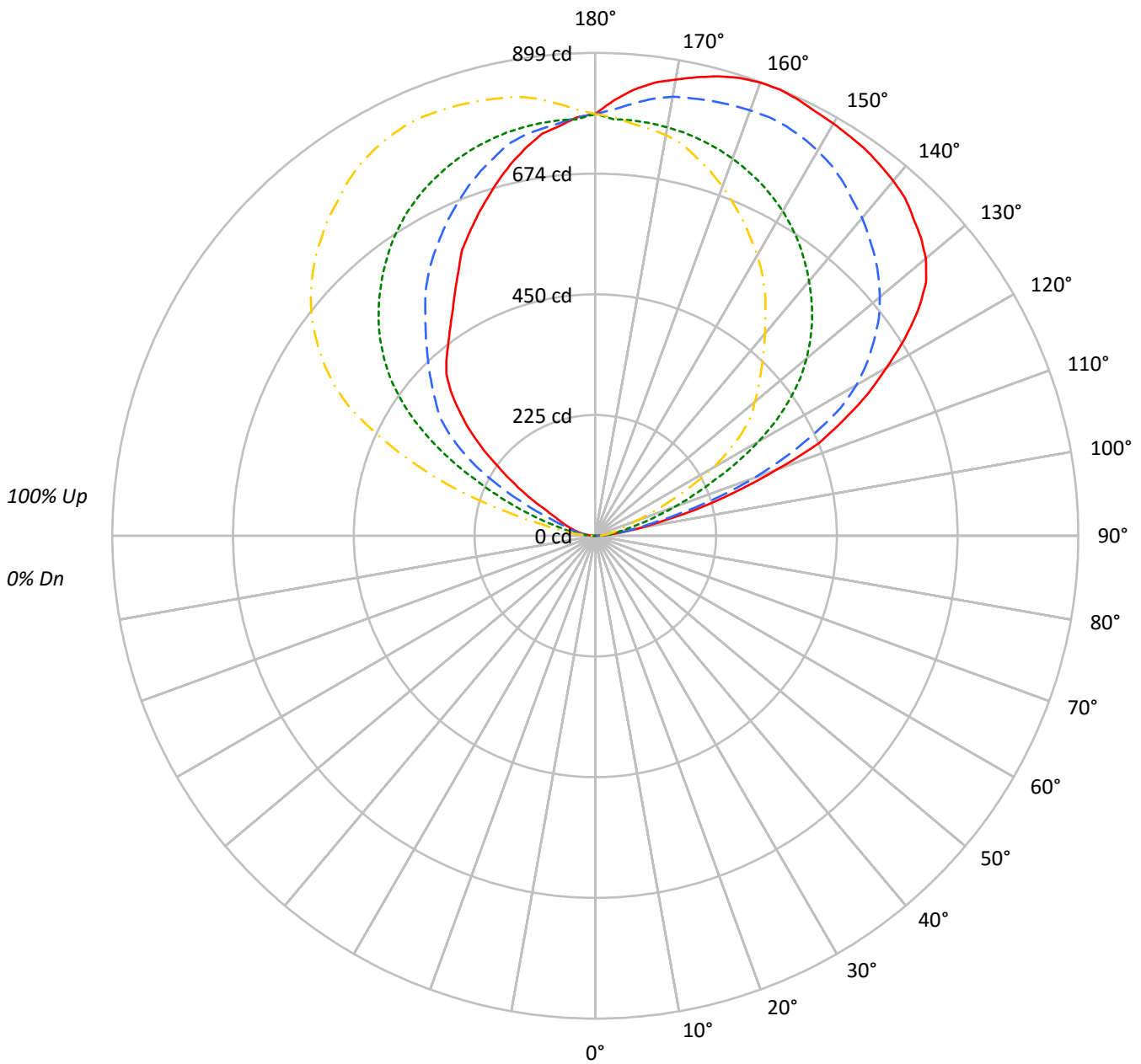
Test Method: LM-66-11  
Report Number: 19168A  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 687-12-CF2/26  
Description: INTERIOR WALL MOUNT LUMINAIRE WITH WHITE INTERIOR AND NO LENS  
  
Light Source: TWO 26 WATT CPFL LAMPS. LUMEN RATING = 3600 LMS.  
  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 3600 (1 lamp)  
Luminaire Lumens: 2363.2 lumens  
Efficiency: 65.6%  
Efficacy: -  
N/A  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Indirect  
  
Input Watts (W): 0  
Input Voltage (V): NR  
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



— 0°-180°    - - - 45°-225°    ···· 90°-270°    - · - · 135°-315°



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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	0
RCR																		
0	63	63	63	63	53	53	53	53	36	36	36	21	21	21	7	7	7	0
1	57	54	52	50	48	46	45	43	32	31	30	18	18	17	6	6	6	0
2	52	47	44	41	44	40	38	35	28	26	24	16	15	14	5	5	5	0
3	47	41	37	34	40	36	32	29	24	22	20	14	13	12	5	4	4	0
4	43	37	32	28	37	31	27	24	22	19	17	12	11	10	4	4	3	0
5	39	32	27	24	33	28	24	21	19	17	15	11	10	9	4	3	3	0
6	36	29	24	20	31	25	21	18	17	14	13	10	9	7	3	3	2	0
7	33	26	21	18	28	22	18	15	15	13	11	9	8	6	3	2	2	0
8	31	23	19	15	26	20	16	13	14	11	9	8	7	6	3	2	2	0
9	28	21	16	13	24	18	14	12	13	10	8	7	6	5	2	2	2	0
10	26	19	15	12	22	16	13	10	11	9	7	7	5	4	2	2	1	0

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

	0°	90°	180°	270°
95°	Luminaire represents a point source (luminous area is zero).			
100°	No luminance values can be calculated.			
105°				
110°				
115°				
120°				
125°				
130°				
135°				
140°				
145°				
150°				
155°				
160°				
165°				
170°				
175°				



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.0	0.0	0.0
10°-20°	0.0	0.0	0.0
20°-30°	0.0	0.0	0.0
30°-40°	0.0	0.0	0.0
40°-50°	0.0	0.0	0.0
50°-60°	0.0	0.0	0.0
60°-70°	0.0	0.0	0.0
70°-80°	0.0	0.0	0.0
80°-90°	0.0	0.0	0.0
90°-100°	26.5	1.1	0.7
100°-110°	122.0	5.2	3.4
110°-120°	284.1	12.0	7.9
120°-130°	415.7	17.6	11.5
130°-140°	455.2	19.3	12.6
140°-150°	422.2	17.9	11.7
150°-160°	341.6	14.5	9.5
160°-170°	220.5	9.3	6.1
170°-180°	75.4	3.2	2.1
0°-30°	0.0	0.0	0.0
0°-40°	0.0	0.0	0.0
0°-60°	0.0	0.0	0.0
0°-90°	0.0	0.0	0.0
90°-120°	432.6	18.3	12.0
90°-150°	1725.7	73.0	47.9
90°-180°	2363.0	100.0	65.6
0°-180°	2363.2	100.0	65.6

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
90°	0	0	0	0	0	
95°	26	25	12	25	26	34
105°	204	86	41	86	204	219
115°	510	245	82	245	510	501
125°	734	442	214	442	734	651
135°	837	571	380	571	837	647
145°	877	662	471	662	877	550
155°	895	726	587	726	895	414
165°	886	762	688	762	886	251
175°	834	776	766	776	834	80
180°	785	785	785	785	785	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	4.1	6.9	11.7	15.8	12.6	8.1	7.7	6.9	5.7	6.9	7.7
95°	25.6	30.9	28.7	32.8	25.0	17.0	15.1	13.4	12.2	13.4	15.1
97.5°	53.1	59.6	49.6	51.5	36.9	26.3	22.7	20.3	18.7	20.3	22.7
100°	87.1	98.2	74.7	71.3	47.6	35.0	31.6	28.0	26.3	28.0	31.6
102.5°	130.2	152.5	107.5	91.2	62.2	49.1	39.7	35.0	32.8	35.0	39.7
105°	203.5	229.1	168.3	112.3	85.9	76.6	50.3	43.8	41.4	43.8	50.3
107.5°	277.0	299.7	240.8	145.6	118.4	112.8	60.1	53.1	49.1	53.1	60.1
110°	358.9	392.9	315.5	192.2	156.7	154.4	81.2	63.7	59.6	63.7	81.2
112.5°	450.1	457.0	382.8	243.7	197.7	192.2	116.3	74.2	70.1	74.2	116.3
115°	509.7	513.8	449.4	298.1	245.3	233.2	156.6	90.5	82.4	90.5	156.6
117.5°	571.7	572.2	514.2	350.7	299.6	276.5	203.5	125.7	103.4	125.7	203.5
120°	626.0	630.6	561.2	398.6	350.5	317.4	253.0	161.4	139.6	161.4	253.0
122.5°	682.8	684.9	599.7	443.1	398.8	360.1	294.5	203.5	175.2	203.5	294.5
125°	734.0	727.1	633.5	482.2	441.6	401.0	333.2	247.8	214.5	247.8	333.2
127.5°	776.1	757.0	665.1	523.1	480.4	440.7	365.3	295.7	260.7	295.7	365.3
130°	802.9	777.8	691.4	560.0	513.2	474.0	387.6	333.2	304.5	333.2	387.6
132.5°	821.9	797.2	714.8	595.6	543.3	504.9	412.0	372.3	343.1	372.3	412.0
135°	836.9	816.6	735.9	627.2	570.7	533.1	437.1	402.7	379.9	402.7	437.1
137.5°	853.2	829.3	753.9	654.5	595.5	559.2	463.0	423.3	410.3	423.3	463.0
140°	862.6	839.8	772.8	680.9	619.0	585.6	491.0	444.1	430.7	444.1	491.0
142.5°	870.2	849.9	786.7	704.8	641.1	609.5	519.5	465.2	449.4	465.2	519.5
145°	877.4	856.8	804.1	725.9	662.4	633.5	551.1	491.0	471.1	491.0	551.1
147.5°	881.9	864.5	817.6	742.4	680.6	654.0	578.2	515.4	494.4	515.4	578.2
150°	886.0	870.2	827.6	757.0	697.9	674.4	602.6	545.4	522.6	545.4	602.6
152.5°	889.6	876.7	835.7	768.5	712.5	692.1	625.3	577.4	552.3	577.4	625.3
155°	895.4	881.9	841.0	779.0	725.6	710.1	648.8	603.8	586.8	603.8	648.8
157.5°	898.9	882.4	843.9	787.9	737.0	726.6	670.3	627.7	611.4	627.7	670.3
160°	897.8	881.9	842.7	795.5	747.2	739.3	692.1	651.2	637.0	651.2	692.1
162.5°	893.7	877.4	841.0	800.8	755.7	749.8	711.3	675.6	662.2	675.6	711.3
165°	885.5	869.7	838.1	800.8	762.5	757.9	728.7	698.3	688.0	698.3	728.7
167.5°	874.3	859.7	834.1	800.8	768.4	764.4	746.9	720.6	712.5	720.6	746.9
170°	862.6	849.9	830.0	798.4	772.1	769.2	757.5	741.2	734.7	741.2	757.5
172.5°	851.1	840.5	820.7	794.8	774.9	774.5	764.4	755.8	755.1	755.8	764.4
175°	834.1	824.0	807.7	791.5	776.3	777.8	770.9	764.4	765.6	764.4	770.9
177.5°	811.8	803.7	794.3	787.4	776.1	781.4	779.7	777.3	779.7	777.3	779.7
180°	785.2	785.2	785.2	785.2	785.2	785.2	785.2	785.2	785.2	785.2	785.2



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	8.1	12.6	15.8	11.7	6.9	4.1
95°	17.0	25.0	32.8	28.7	30.9	25.6
97.5°	26.3	36.9	51.5	49.6	59.6	53.1
100°	35.0	47.6	71.3	74.7	98.2	87.1
102.5°	49.1	62.2	91.2	107.5	152.5	130.2
105°	76.6	85.9	112.3	168.3	229.1	203.5
107.5°	112.8	118.4	145.6	240.8	299.7	277.0
110°	154.4	156.7	192.2	315.5	392.9	358.9
112.5°	192.2	197.7	243.7	382.8	457.0	450.1
115°	233.2	245.3	298.1	449.4	513.8	509.7
117.5°	276.5	299.6	350.7	514.2	572.2	571.7
120°	317.4	350.5	398.6	561.2	630.6	626.0
122.5°	360.1	398.8	443.1	599.7	684.9	682.8
125°	401.0	441.6	482.2	633.5	727.1	734.0
127.5°	440.7	480.4	523.1	665.1	757.0	776.1
130°	474.0	513.2	560.0	691.4	777.8	802.9
132.5°	504.9	543.3	595.6	714.8	797.2	821.9
135°	533.1	570.7	627.2	735.9	816.6	836.9
137.5°	559.2	595.5	654.5	753.9	829.3	853.2
140°	585.6	619.0	680.9	772.8	839.8	862.6
142.5°	609.5	641.1	704.8	786.7	849.9	870.2
145°	633.5	662.4	725.9	804.1	856.8	877.4
147.5°	654.0	680.6	742.4	817.6	864.5	881.9
150°	674.4	697.9	757.0	827.6	870.2	886.0
152.5°	692.1	712.5	768.5	835.7	876.7	889.6
155°	710.1	725.6	779.0	841.0	881.9	895.4
157.5°	726.6	737.0	787.9	843.9	882.4	898.9
160°	739.3	747.2	795.5	842.7	881.9	897.8
162.5°	749.8	755.7	800.8	841.0	877.4	893.7
165°	757.9	762.5	800.8	838.1	869.7	885.5
167.5°	764.4	768.4	800.8	834.1	859.7	874.3
170°	769.2	772.1	798.4	830.0	849.9	862.6
172.5°	774.5	774.9	794.8	820.7	840.5	851.1
175°	777.8	776.3	791.5	807.7	824.0	834.1
177.5°	781.4	776.1	787.4	794.3	803.7	811.8
180°	785.2	785.2	785.2	785.2	785.2	785.2

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