

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: 19381

Luminaire Tested: **271-14-CF2/13**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19381
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 271-14-CF2/13
Description: INTERIOR CEILING MOUNT LUMINAIRE WITH WHITE INTERIOR AND WHITE PLASTIC LENS
Light Source: TWO SYLVANIA 13 WATT CPFL LAMPS

CF13DS/E/830. LUMEN RATING = 1600 LMS.

Ballast/Driver: -

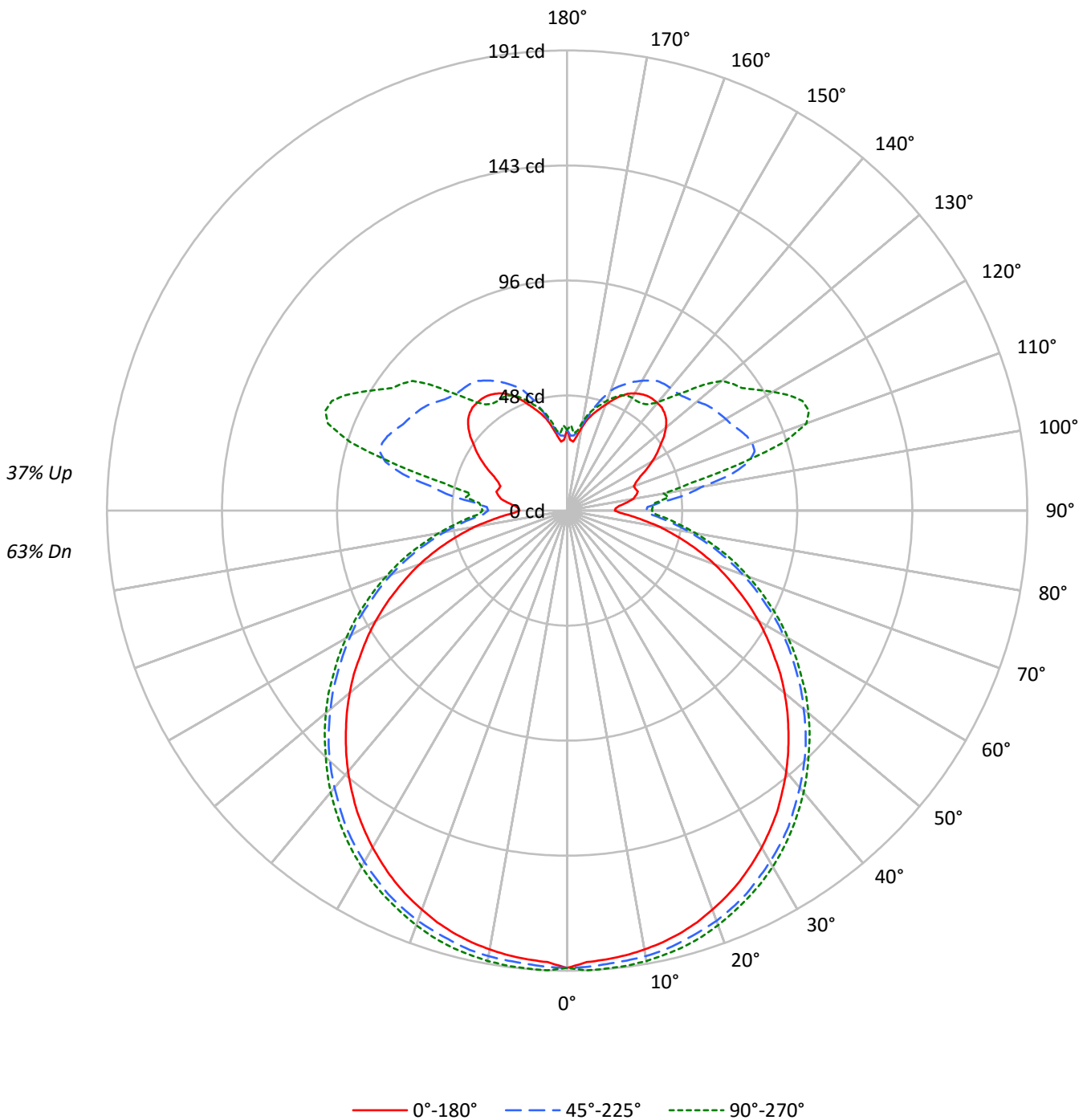
Summary

Lumens per Lamp: 1600 (1 lamp)
Luminaire Lumens: 1034.0 lumens
Efficiency: 64.6%
Efficacy: 39.8 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.33 / 1.45
Luminous Opening: (L: 1.07 ' x W: -0.08 ' x H: 0.11 '
CIE Type: Semi-Direct

Input Watts (W): 26
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





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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	71	71	71	71	67	67	67	67	59	59	59		51	51	51		44	44	44	41
1	64	61	58	55	60	57	54	52	50	48	46		43	42	40		37	36	35	32
2	58	52	48	44	54	49	45	42	43	40	37		37	35	33		32	30	29	26
3	52	46	40	36	49	43	38	34	38	34	31		33	30	27		28	26	24	22
4	48	40	35	30	45	38	33	29	33	29	26		29	26	23		25	22	20	18
5	44	36	30	26	41	34	28	25	30	25	22		26	22	20		22	20	17	16
6	40	32	26	22	38	30	25	21	27	22	19		23	20	17		20	17	15	13
7	37	29	23	19	35	27	22	19	24	20	17		21	18	15		18	16	13	12
8	35	26	21	17	32	25	20	16	22	18	15		19	16	13		17	14	12	10
9	32	24	19	15	30	23	18	15	20	16	13		18	14	12		16	13	11	9
10	30	22	17	14	28	21	16	13	18	15	12		16	13	11		14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	Luminous shape not found,		
5°	reference photometric report, or contact		
10°	the photometric lab for calculations.		
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	18.0	1.7	1.1
10°-20°	52.3	5.1	3.3
20°-30°	80.7	7.8	5.0
30°-40°	99.5	9.6	6.2
40°-50°	106.9	10.3	6.7
50°-60°	102.6	9.9	6.4
60°-70°	88.0	8.5	5.5
70°-80°	66.1	6.4	4.1
80°-90°	42.2	4.1	2.6
90°-100°	40.6	3.9	2.5
100°-110°	66.4	6.4	4.1
110°-120°	74.0	7.2	4.6
120°-130°	64.9	6.3	4.1
130°-140°	51.9	5.0	3.2
140°-150°	38.5	3.7	2.4
150°-160°	25.7	2.5	1.6
160°-170°	12.5	1.2	0.8
170°-180°	3.1	0.3	0.2
0°-30°	151.0	14.6	9.4
0°-40°	250.5	24.2	15.7
0°-60°	460.0	44.5	28.7
0°-90°	656.3	63.5	41.0
90°-120°	180.9	17.5	11.3
90°-150°	336.2	32.5	21.0
90°-180°	378.0	36.6	23.6
0°-180°	1034.0	100.0	64.6

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	190	190	190	190	190	
5°	187	188	189	191	191	18
15°	182	183	185	188	187	51
25°	170	173	176	178	178	78
35°	152	156	160	163	162	95
45°	130	135	140	143	142	100
55°	105	111	116	120	118	94
65°	78	85	90	94	93	78
75°	52	58	65	68	67	55
85°	27	34	40	43	42	24
90°	20	27	33	36	35	11
95°	22	31	39	42	37	19
105°	30	52	78	76	73	31
115°	34	47	79	103	108	34
125°	47	57	74	90	89	42
135°	57	65	67	71	70	44
145°	58	64	66	59	54	36
155°	52	56	58	56	53	24
165°	42	43	44	45	44	12
175°	29	29	31	33	32	3
180°	34	34	34	34	34	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	189.8	189.8	189.8	189.8	189.8
2.5°	187.6	188.8	189.6	191.5	191.0
5°	187.0	188.4	188.9	191.0	190.8
7.5°	186.2	187.6	188.4	190.6	190.5
10°	185.0	186.6	187.8	189.8	189.8
12.5°	183.5	185.2	186.8	188.8	188.7
15°	181.6	183.3	185.0	187.5	187.4
17.5°	179.2	181.2	183.2	185.8	185.5
20°	176.3	178.9	181.2	183.6	183.2
22.5°	173.2	176.1	178.6	181.0	180.4
25°	169.7	172.9	175.7	178.2	177.5
27.5°	165.7	169.0	172.0	174.5	174.3
30°	161.5	165.1	168.4	170.9	170.7
32.5°	156.9	160.8	164.4	167.0	166.7
35°	152.2	156.3	160.2	162.9	162.3
37.5°	146.8	151.2	155.1	158.1	157.6
40°	141.5	146.1	150.2	153.4	152.7
42.5°	135.8	140.9	145.2	148.2	147.4
45°	129.9	135.3	139.9	142.7	141.9
47.5°	124.0	129.4	134.2	137.2	136.5
50°	117.8	123.5	128.2	131.5	130.7
52.5°	111.6	117.5	122.4	125.7	124.9
55°	104.7	110.8	116.1	119.5	118.4
57.5°	98.4	104.7	109.9	113.3	112.4
60°	91.8	98.1	103.8	107.0	106.0
62.5°	85.1	91.5	97.5	100.6	99.6
65°	78.2	84.9	90.5	94.1	93.0
67.5°	71.6	78.4	84.2	87.7	86.6
70°	65.1	71.8	77.7	81.0	80.0
72.5°	58.3	65.1	71.0	74.6	73.6
75°	51.6	58.5	64.6	68.0	67.1
77.5°	45.0	51.9	57.9	61.3	60.3
80°	39.0	45.8	51.7	55.1	54.2
82.5°	32.5	39.5	45.7	49.1	48.0
85°	27.0	33.8	40.0	43.4	42.5
87.5°	22.0	28.6	34.7	38.2	36.9
90°	19.8	26.7	32.8	36.3	35.1
92.5°	20.1	27.4	33.4	36.8	35.6
95°	21.6	30.8	38.8	41.7	36.7
97.5°	24.7	41.9	49.4	49.3	42.4
100°	27.8	49.9	56.9	47.2	40.7
102.5°	29.3	52.2	69.9	57.6	52.2
105°	30.4	51.6	78.1	75.8	73.0
107.5°	29.8	48.9	81.6	92.6	94.3
110°	29.5	47.1	81.8	100.5	105.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	31.0	46.5	80.7	103.8	108.6
115°	33.5	47.0	79.0	103.2	107.7
117.5°	37.2	49.2	77.1	99.8	103.8
120°	40.7	51.7	76.0	95.9	98.5
122.5°	44.2	54.4	74.9	91.6	93.3
125°	47.2	57.3	73.8	90.2	88.6
127.5°	50.7	60.2	72.3	87.5	86.5
130°	53.5	62.4	70.3	83.7	83.7
132.5°	55.8	64.1	68.5	77.0	77.5
135°	57.2	65.3	67.3	70.9	70.0
137.5°	58.1	65.9	66.7	65.7	63.9
140°	58.3	65.6	66.5	62.0	58.7
142.5°	58.4	65.2	66.2	60.1	55.5
145°	58.1	64.1	65.6	59.0	54.2
147.5°	57.3	62.9	64.0	58.5	53.8
150°	56.2	60.9	62.2	58.0	54.1
152.5°	54.7	58.9	60.3	57.2	53.8
155°	52.4	55.9	58.0	55.9	52.8
157.5°	49.7	53.1	55.8	53.9	50.8
160°	46.8	49.9	53.0	51.3	48.6
162.5°	44.1	46.3	48.9	47.8	46.0
165°	41.5	42.9	44.5	44.6	43.8
167.5°	38.7	39.0	40.0	40.5	41.2
170°	35.0	35.2	36.3	36.9	37.6
172.5°	31.3	31.9	32.9	33.8	33.4
175°	28.7	29.4	31.3	33.0	32.2
177.5°	29.4	29.7	31.1	34.0	35.4
180°	33.5	33.5	33.5	33.5	33.5

(END OF REPORT)