

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: 19437

Luminaire Tested: **449-EL-24-CF4/26**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19437
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 449-EL-24-CF4/26
Description: INTERIOR SUSPENDED LUMINAIRE WITH WHITE PLASTIC BOWL LENS

Light Source: FOUR SYLVANIA 26 WATT CPFL LAMPS

CF26DT/E/IN/830. LUMEN RATING = 7200 LMS.

Ballast/Driver: -

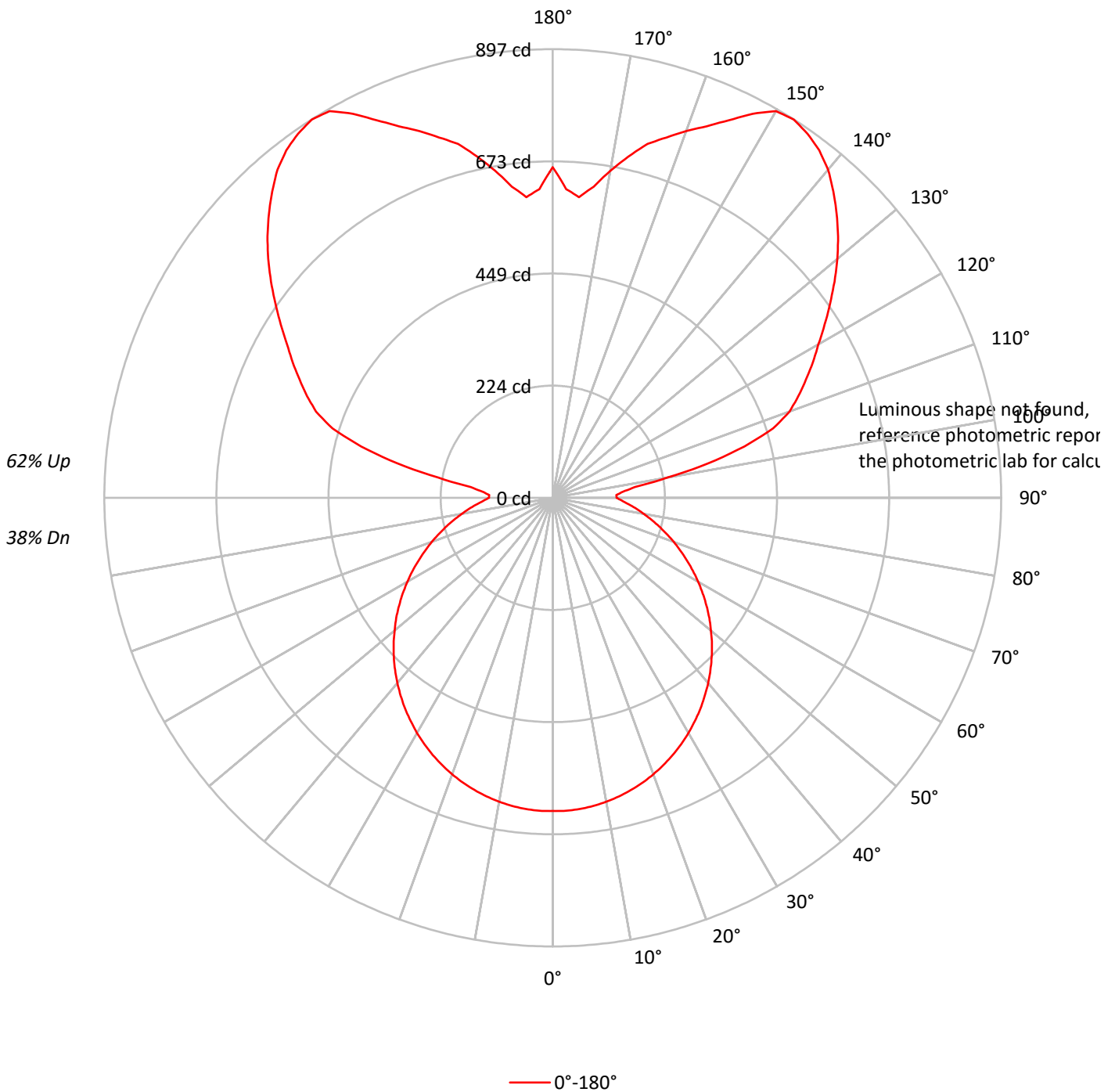
Summary

Lumens per Lamp: 7200 (1 lamp)
Luminaire Lumens: 5757.5 lumens
Efficiency: 80.0%
Efficacy: 54.8 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.43
Luminous Opening: (L: 0' x W: -0.25' x H: 0.42'
CIE Type: Semi-Indirect

Input Watts (W): 105
Input Voltage (V): NR
Input Current (A_{in}): 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





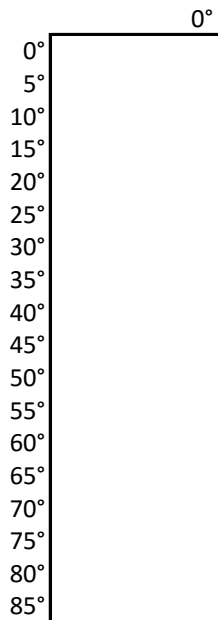
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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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	83	83	83	83	76	76	76	76	61	61	61	48	48	48	36	36	36	30
1	75	71	68	65	68	65	62	59	52	50	48	41	39	38	30	29	28	24
2	68	62	56	52	61	56	51	48	45	42	39	35	33	31	26	25	23	19
3	62	54	48	43	56	49	44	39	39	36	32	31	28	26	23	21	19	16
4	56	47	41	36	51	43	37	33	35	31	27	27	24	22	20	18	16	13
5	52	42	35	30	46	38	32	28	31	27	23	24	21	19	18	16	14	11
6	47	38	31	26	43	34	28	24	28	23	20	22	19	16	16	14	12	10
7	44	34	27	23	39	31	25	21	25	21	18	20	17	14	15	13	11	9
8	40	30	24	20	36	28	22	18	23	19	15	18	15	13	14	11	10	8
9	38	28	22	18	34	25	20	16	21	17	14	17	13	11	13	10	9	7
10	35	25	20	16	32	23	18	15	19	15	12	15	12	10	12	9	8	6

AVERAGE LUMINANCE (cd/sqm):





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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	59.4	1.0	0.8
10°-20°	170.8	3.0	2.4
20°-30°	261.7	4.5	3.6
30°-40°	322.2	5.6	4.5
40°-50°	347.1	6.0	4.8
50°-60°	335.7	5.8	4.7
60°-70°	293.5	5.1	4.1
70°-80°	232.7	4.0	3.2
80°-90°	168.3	2.9	2.3
90°-100°	167.1	2.9	2.3
100°-110°	407.7	7.1	5.7
110°-120°	554.0	9.6	7.7
120°-130°	606.8	10.5	8.4
130°-140°	619.8	10.8	8.6
140°-150°	554.8	9.6	7.7
150°-160°	387.9	6.7	5.4
160°-170°	207.8	3.6	2.9
170°-180°	60.1	1.0	0.8
0°-30°	491.9	8.5	6.8
0°-40°	814.2	14.1	11.3
0°-60°	1497.0	26.0	20.8
0°-90°	2191.5	38.1	30.4
90°-120°	1128.8	19.6	15.7
90°-150°	2910.2	50.5	40.4
90°-180°	3566.0	61.9	49.5
0°-180°	5757.5	100.0	80.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	626	
5°	624	59
15°	605	171
25°	568	262
35°	515	322
45°	450	347
55°	375	336
65°	296	294
75°	220	233
85°	153	132
90°	128	71
95°	140	132
105°	397	408
115°	559	554
125°	677	607
135°	803	620
145°	889	555
155°	833	388
165°	732	208
175°	604	60
180°	661	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	626.1
2.5°	626.3
5°	624.5
7.5°	621.5
10°	617.1
12.5°	611.5
15°	604.8
17.5°	597.3
20°	588.3
22.5°	578.3
25°	567.6
27.5°	555.6
30°	542.9
32.5°	528.9
35°	514.9
37.5°	499.4
40°	483.6
42.5°	466.8
45°	449.6
47.5°	431.8
50°	413.1
52.5°	394.6
55°	375.1
57.5°	355.7
60°	335.6
62.5°	316.0
65°	295.8
67.5°	276.4
70°	257.6
72.5°	238.0
75°	219.9
77.5°	201.8
80°	185.0
82.5°	168.8
85°	153.4
87.5°	138.9
90°	127.6
92.5°	127.3
95°	140.4
97.5°	165.4
100°	232.5
102.5°	318.7
105°	396.9
107.5°	462.0
110°	503.7



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	531.8
115°	558.6
117.5°	586.2
120°	613.6
122.5°	644.9
125°	676.9
127.5°	710.3
130°	742.9
132.5°	774.0
135°	802.9
137.5°	830.7
140°	856.6
142.5°	875.4
145°	888.6
147.5°	896.9
150°	892.7
152.5°	865.7
155°	832.6
157.5°	803.8
160°	780.1
162.5°	755.3
165°	732.4
167.5°	698.7
170°	664.0
172.5°	627.4
175°	603.5
177.5°	617.5
180°	660.9

(END OF REPORT)