

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: 19859

Luminaire Tested: **293-20-T5C/2/22/40**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 19859
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 293-20-T5C/2/22/40
Description: INTERIOR CEILING MOUNT LUMINAIRE WITH WHITE INTERIOR AND WHITE PLASTIC BOWL LENS
Light Source: 1 22 & 1 40 WATT CIRCULAR LAMP

FC9 & FC12T5/830. LUMEN RATING = 4830 LMS.

Ballast/Driver: -

Summary

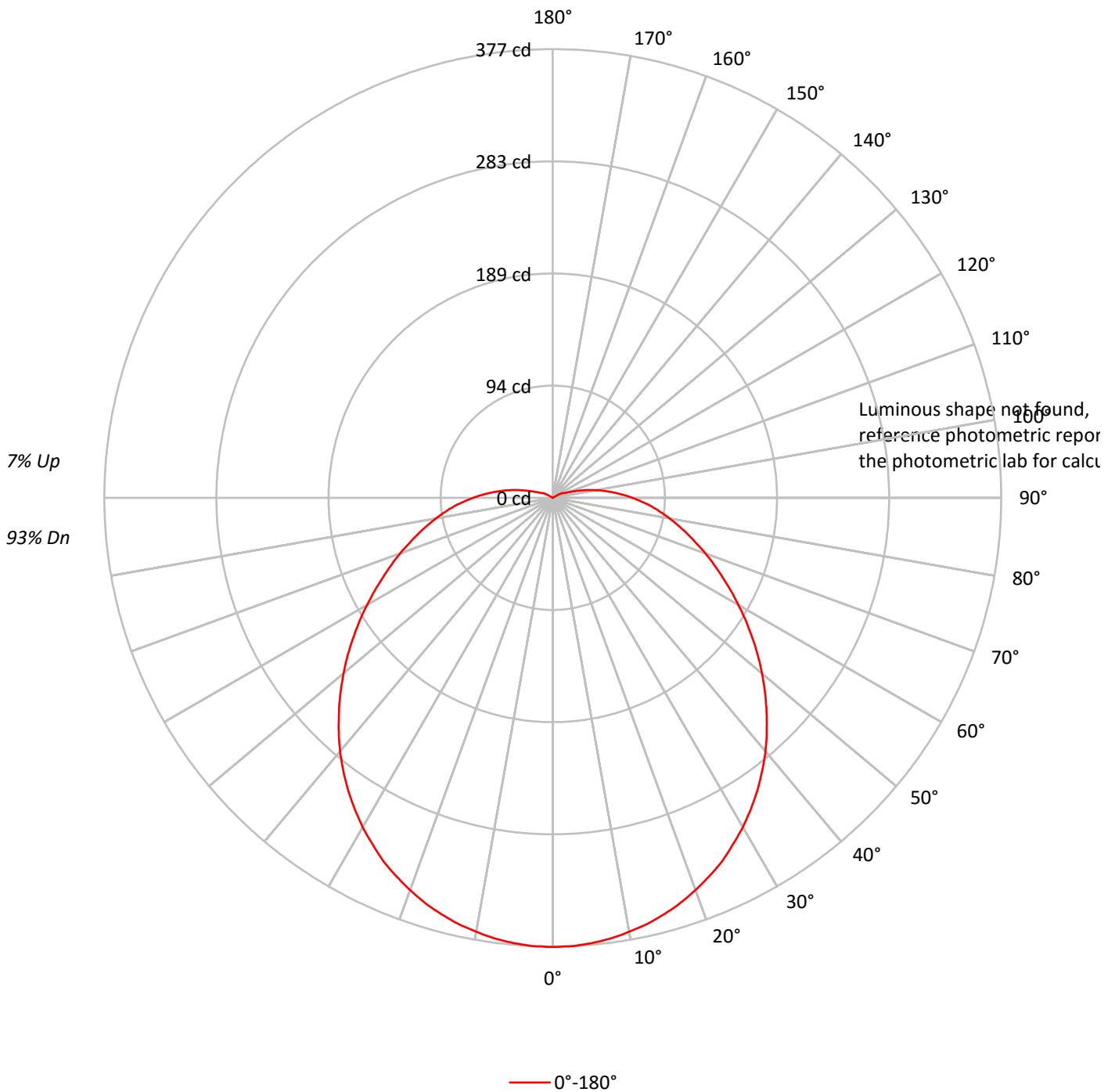
Lumens per Lamp: 4830 (1 lamp)
Luminaire Lumens: 1322.8 lumens
Efficiency: 27.4%
Efficacy: 26.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38
Luminous Opening: (L: 0 ' x W: -1.46 ' x H: 0 '
CIE Type: Direct

Input Watts (W): 50
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



TEST NUMBER: 19859
CATALOG NUMBER: 293-20-T5C/2/22/40

Luminous Intensity Polar Plot





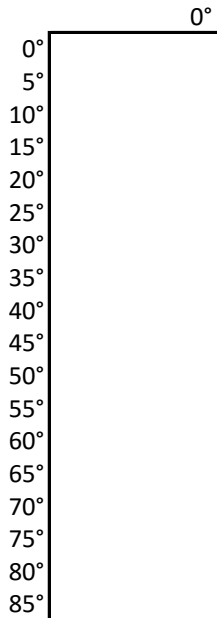
TEST NUMBER: 19859

CATALOG NUMBER: 293-20-T5C/2/22/40

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	32	32	32	32	31	31	31	31	29	29	29	28	28	28	26	26	26	25
1	29	27	26	24	28	26	25	24	25	24	23	23	22	22	22	21	21	20
2	26	23	21	19	25	23	21	19	21	20	18	20	19	18	19	18	17	16
3	23	20	18	16	23	20	17	16	19	17	15	18	16	15	17	15	14	13
4	21	18	15	13	21	17	15	13	16	14	13	16	14	12	15	13	12	11
5	20	16	13	11	19	16	13	11	15	13	11	14	12	11	13	12	10	10
6	18	14	12	10	17	14	12	10	13	11	10	13	11	9	12	10	9	8
7	17	13	10	9	16	13	10	9	12	10	8	11	10	8	11	9	8	7
8	16	12	9	8	15	12	9	8	11	9	8	11	9	7	10	8	7	7
9	15	11	9	7	14	11	8	7	10	8	7	10	8	7	9	8	6	6
10	14	10	8	6	13	10	8	6	9	7	6	9	7	6	9	7	6	5

AVERAGE LUMINANCE (cd/sqm):





TEST NUMBER: 19859

CATALOG NUMBER: 293-20-T5C/2/22/40

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	35.7	2.7	0.7
10°-20°	102.2	7.7	2.1
20°-30°	155.1	11.7	3.2
30°-40°	187.6	14.2	3.9
40°-50°	196.3	14.8	4.1
50°-60°	183.4	13.9	3.8
60°-70°	156.3	11.8	3.2
70°-80°	124.1	9.4	2.6
80°-90°	90.8	6.9	1.9
90°-100°	56.3	4.3	1.2
100°-110°	25.6	1.9	0.5
110°-120°	9.1	0.7	0.2
120°-130°	0.4	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	293.1	22.2	6.1
0°-40°	480.7	36.3	10.0
0°-60°	860.3	65.0	17.8
0°-90°	1231.5	93.1	25.5
90°-120°	91.0	6.9	1.9
90°-150°	91.3	6.9	1.9
90°-180°	91.0	6.9	1.9
0°-180°	1322.8	100.0	27.4

CANDELA DISTRIBUTION:

0°	Flux
0°	377
5°	376
15°	362
25°	337
35°	300
45°	254
55°	205
65°	157
75°	117
85°	83
90°	67
95°	51
105°	23
115°	9
125°	0
135°	0
145°	0
155°	0
165°	0
175°	0
180°	0

TEST NUMBER: 19859

CATALOG NUMBER: 293-20-T5C/2/22/40

CANDELA DISTRIBUTION (FULL):

0°	
0°	377.4
2.5°	377.1
5°	375.6
7.5°	373.5
10°	370.3
12.5°	366.8
15°	362.2
17.5°	357.0
20°	350.7
22.5°	344.1
25°	336.9
27.5°	328.2
30°	319.6
32.5°	309.9
35°	300.0
37.5°	289.2
40°	278.1
42.5°	266.3
45°	254.2
47.5°	242.0
50°	229.5
52.5°	217.3
55°	204.7
57.5°	192.5
60°	180.3
62.5°	168.7
65°	157.1
67.5°	146.7
70°	136.6
72.5°	126.4
75°	117.1
77.5°	108.1
80°	99.7
82.5°	91.3
85°	83.4
87.5°	75.0
90°	66.9
92.5°	59.1
95°	51.3
97.5°	44.2
100°	36.7
102.5°	30.0
105°	23.4
107.5°	17.9
110°	13.3

TEST NUMBER: 19859
CATALOG NUMBER: 293-20-T5C/2/22/40

CANDELA DISTRIBUTION (continued):

	0°
112.5°	10.7
115°	9.4
117.5°	7.9
120°	3.3
122.5°	0.0
125°	0.0
127.5°	0.0
130°	0.0
132.5°	0.0
135°	0.0
137.5°	0.0
140°	0.0
142.5°	0.0
145°	0.0
147.5°	0.0
150°	0.0
152.5°	0.0
155°	0.0
157.5°	0.0
160°	0.0
162.5°	0.0
165°	0.0
167.5°	0.0
170°	0.0
172.5°	0.0
175°	0.0
177.5°	0.0
180°	0.0

(END OF REPORT)