

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: 19858

Luminaire Tested: **293-16"-T5C/1/40**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-66-11  
Report Number: 19858  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 293-16"-T5C/1/40  
Description: INTERIOR CEILING MOUNT LUMINAIRE WITH WHITE INTERIOR AND WHITE PLASTIC BOWL LENS  
Light Source: ONE PHILIPS 40 WATT CIRCULAR LAMP  
  
FC12T5/830. LUMEN RATING = 3300 LMS.  
  
Ballast/Driver: -

**Summary**

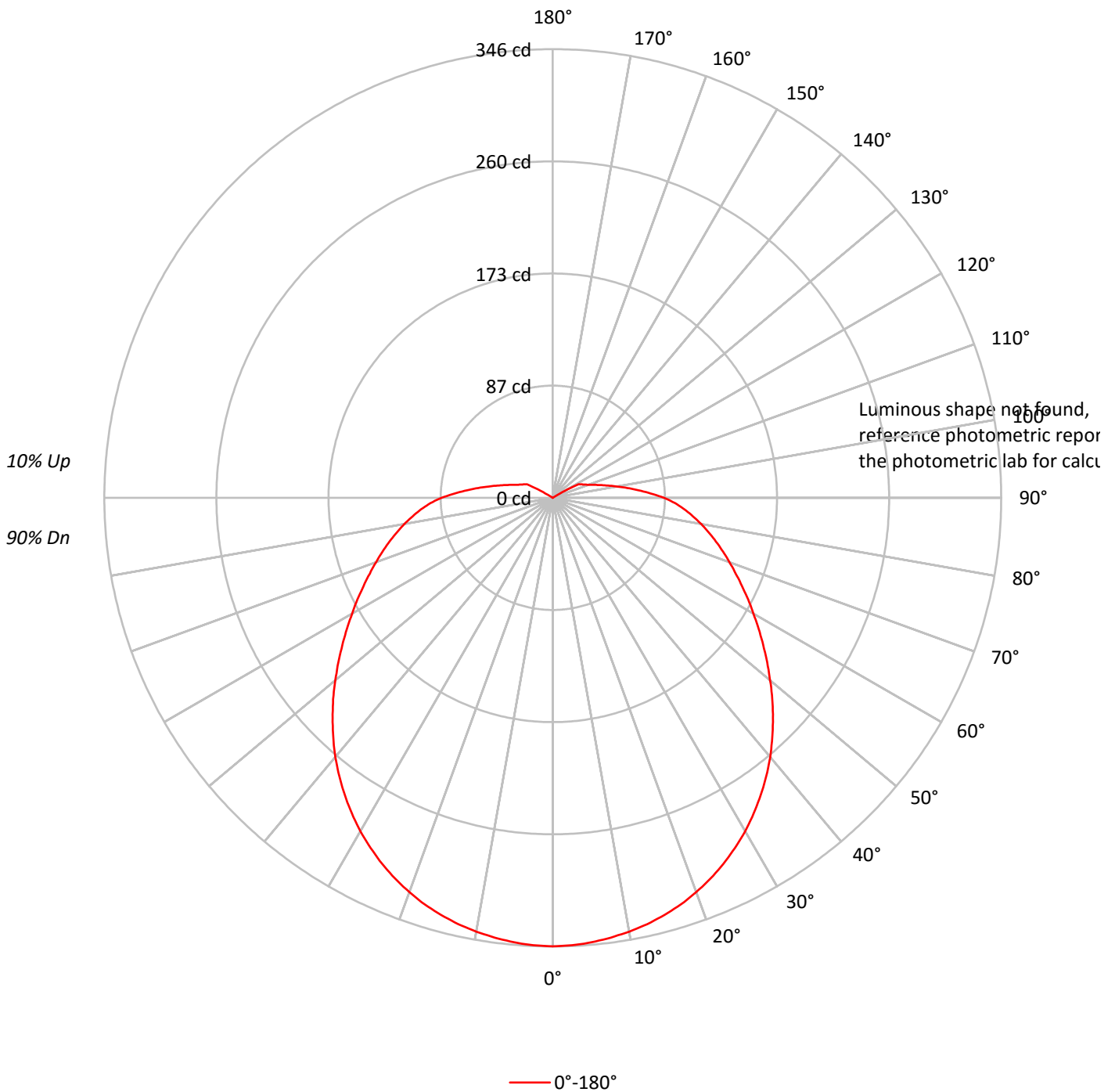
Lumens per Lamp: 3300 (1 lamp)  
Luminaire Lumens: 1356.2 lumens  
Efficiency: 41.1%  
Efficacy: 38.7 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.4  
Luminous Opening: (L: 0 ' x W: -1.04 ' x H: 0 '  
CIE Type: Semi-Direct

Input Watts (W): 35  
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: 19858  
CATALOG NUMBER: 293-16"-T5C/1/40

### Luminous Intensity Polar Plot





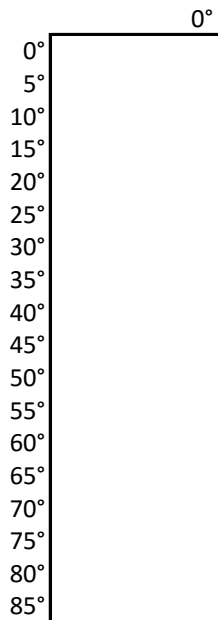
TEST NUMBER: 19858

CATALOG NUMBER: 293-16"-T5C/1/40

**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	48	48	48	48	46	46	46	46	43	43	43	41	41	41	38	38	38	37
1	42	40	38	36	41	39	36	35	36	34	33	34	32	31	31	30	29	28
2	38	34	31	28	37	33	30	27	31	28	26	29	27	25	27	25	24	23
3	35	30	26	23	33	29	25	22	27	24	21	25	23	21	23	21	20	19
4	31	26	22	19	30	25	22	19	24	21	18	22	20	17	21	19	17	16
5	29	23	19	16	28	22	19	16	21	18	15	20	17	15	19	16	14	13
6	27	21	17	14	26	20	17	14	19	16	13	18	15	13	17	14	13	12
7	25	19	15	12	24	18	15	12	17	14	12	16	14	11	15	13	11	10
8	23	17	14	11	22	17	13	11	16	13	11	15	12	10	14	12	10	9
9	21	16	12	10	21	15	12	10	14	12	9	14	11	9	13	11	9	8
10	20	14	11	9	19	14	11	9	13	11	9	13	10	8	12	10	8	7

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





TEST NUMBER: 19858

CATALOG NUMBER: 293-16"-T5C/1/40

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	32.7	2.4	1.0
10°-20°	94.0	6.9	2.8
20°-30°	143.6	10.6	4.4
30°-40°	175.1	12.9	5.3
40°-50°	185.5	13.7	5.6
50°-60°	177.7	13.1	5.4
60°-70°	160.0	11.8	4.8
70°-80°	137.9	10.2	4.2
80°-90°	110.9	8.2	3.4
90°-100°	73.2	5.4	2.2
100°-110°	40.9	3.0	1.2
110°-120°	23.3	1.7	0.7
120°-130°	1.3	0.1	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°	270.3	19.9	8.2
0°-40°	445.5	32.8	13.5
0°-60°	808.7	59.6	24.5
0°-90°	1217.5	89.8	36.9
90°-120°	137.4	10.1	4.2
90°-150°	138.7	10.2	4.2
90°-180°	139.0	10.2	4.2
0°-180°	1356.2	100.0	41.1

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	346	
5°	344	33
15°	333	94
25°	312	144
35°	280	175
45°	240	186
55°	198	178
65°	161	160
75°	130	138
85°	102	86
90°	86	47
95°	66	51
105°	38	41
115°	24	23
125°	0	1
135°	0	0
145°	0	0
155°	0	0
165°	0	0
175°	0	0
180°	0	



TEST NUMBER: 19858

CATALOG NUMBER: 293-16"-T5C/1/40

**CANDELA DISTRIBUTION (FULL):**

0°	
0°	345.9
2.5°	345.4
5°	344.1
7.5°	342.1
10°	339.7
12.5°	336.7
15°	333.1
17.5°	328.8
20°	323.6
22.5°	317.9
25°	311.5
27.5°	304.4
30°	297.0
32.5°	288.5
35°	279.8
37.5°	270.6
40°	261.0
42.5°	250.7
45°	240.2
47.5°	229.8
50°	218.9
52.5°	208.5
55°	198.2
57.5°	188.3
60°	178.8
62.5°	169.9
65°	161.1
67.5°	152.8
70°	145.1
72.5°	137.6
75°	130.4
77.5°	123.1
80°	116.2
82.5°	109.1
85°	102.0
87.5°	94.5
90°	85.8
92.5°	75.8
95°	66.4
97.5°	58.0
100°	50.2
102.5°	43.6
105°	37.9
107.5°	33.1
110°	29.3



TEST NUMBER: 19858

CATALOG NUMBER: 293-16"-T5C/1/40

**CANDELA DISTRIBUTION (continued):**

	0°
112.5°	26.6
115°	24.5
117.5°	22.4
120°	10.9
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)