

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: RSA

Report Number: P22182-R2

Luminaire Tested: **CSHRN40SML11**

Issue Date: 3/3/2020

**Test Information**

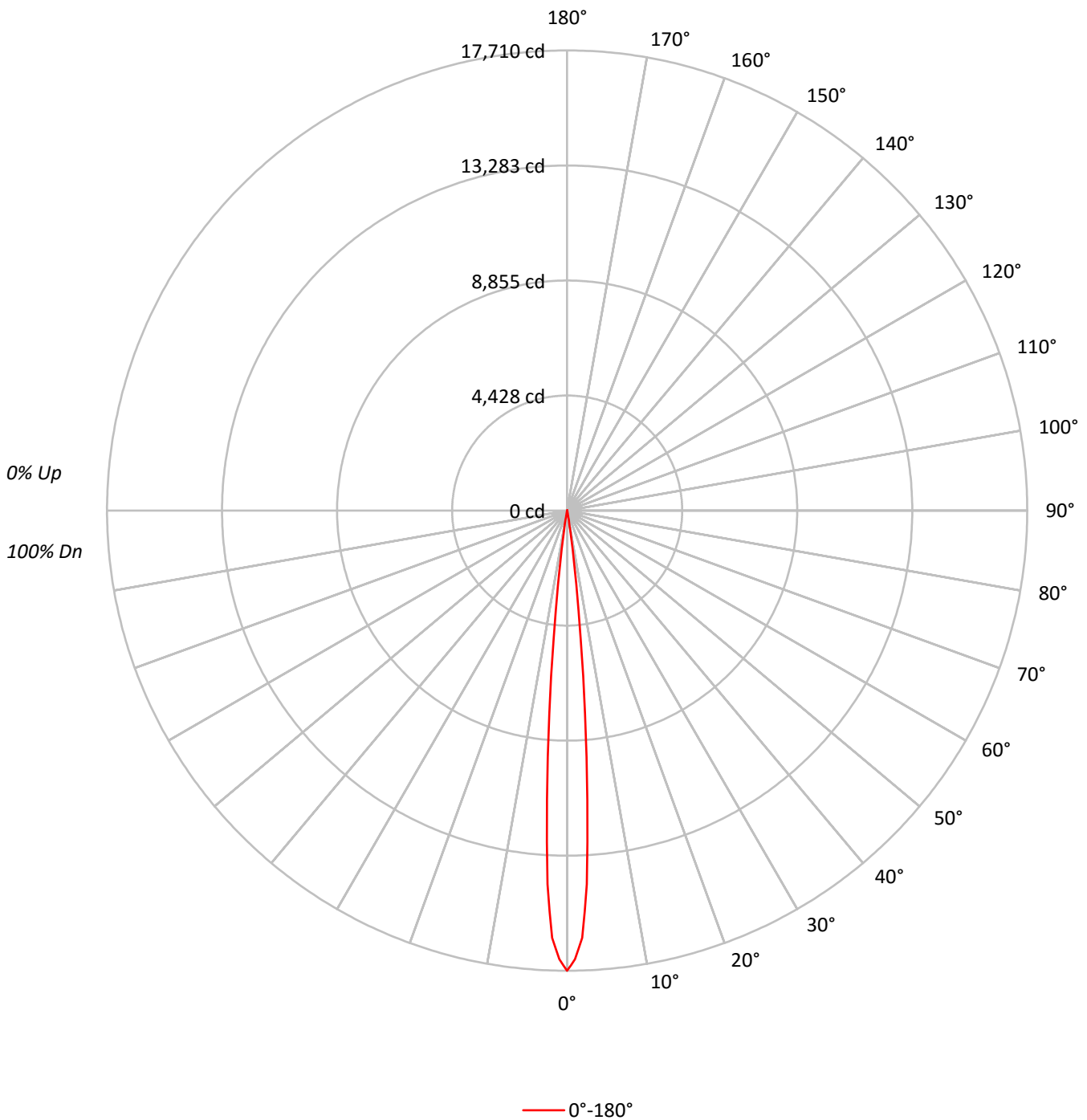
Test Method: LM-79-08  
Report Number: P22182-R2  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: RSA  
Catalog Number: CSHRN40SML11  
Description: \*\*\*THIS IS A REVISION OF P22182 TO UPDATE CATALOG  
NUMBER\*\*\*COMBOLIGHT ONE 8W LED HEAD, 3 LED UNIT SPOT  
DISTRIBUTION,4000K  
Light Source: (3) 4000K SMT LEDS  
Ballast/Driver: (1) MAGTECH HIGH PERFECTION ELECTRONIC DRIVER  
LP1020-12-C700

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 522.6 lumens  
Efficiency: N/A  
Efficacy: 66.2 lumens/watt  
Spacing Criteria (0/90/45): 0.16 / 0.16 / 0.15  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 7.9  
Input Voltage (V): NR  
Input Current (Ain): 0.0681  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: HR  
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				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	116	114	113	112	114	112	111	110	108	107	107	105	104	103	102	101	100	99	99	99	99
2	114	111	109	107	112	109	107	106	106	105	104	104	102	101	101	100	99	98	98	98	98
3	112	108	106	104	110	107	105	103	105	103	102	103	101	100	101	100	99	97	97	97	97
4	110	106	104	102	109	105	103	101	104	102	100	102	100	99	100	99	98	97	97	97	97
5	109	105	102	100	107	104	102	100	103	101	99	101	100	98	100	99	97	97	97	97	97
6	107	103	101	99	106	103	100	99	102	100	98	101	99	98	100	98	97	96	96	96	96
7	106	102	100	98	105	102	100	98	101	99	97	100	98	97	99	98	97	96	96	96	96
8	105	102	99	97	105	101	99	97	100	98	97	100	98	97	99	97	96	95	95	95	95
9	105	101	98	97	104	100	98	97	100	98	96	99	97	96	99	97	96	95	95	95	95
10	104	100	98	96	103	100	98	96	99	97	96	99	97	96	98	97	96	95	95	95	95

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

	0°
0°	3883461
5°	1728369
10°	77710
15°	7265
20°	2100
25°	3387
30°	2279
35°	268
40°	4008
45°	1240
50°	341
55°	382
60°	2631
65°	2075
70°	0
75°	1694
80°	6314
85°	5032



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	481.2	92.1
10°-20°	16.2	3.1
20°-30°	7.0	1.3
30°-40°	6.0	1.2
40°-50°	4.0	0.8
50°-60°	1.3	0.2
60°-70°	3.0	0.6
70°-80°	2.3	0.4
80°-90°	1.8	0.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	504.3	96.5
0°-40°	510.4	97.7
0°-60°	515.6	98.7
0°-90°	522.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	522.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	17710	
5°	7852	481
15°	32	16
25°	14	7
35°	1	6
45°	4	4
55°	1	1
65°	4	3
75°	2	2
85°	2	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	17710
1°	17268
2°	16459
3°	14399
4°	11163
5°	7852
6°	4951
7°	2850
8°	1510
9°	733
10°	349
11°	180
12°	110
13°	61
14°	46
15°	32
17.5°	20
20°	9
22.5°	18
25°	14
27.5°	19
30°	9
32.5°	16
35°	1
37.5°	10
40°	14
42.5°	9
45°	4
47.5°	1
50°	1
52.5°	1
55°	1
57.5°	0
60°	6
62.5°	2
65°	4
67.5°	3
70°	0
72.5°	2
75°	2
77.5°	2
80°	5
82.5°	1
85°	2
87.5°	1



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CANDELA DISTRIBUTION (continued):

90° |  $\frac{0^\circ}{0}$

(END OF REPORT)