

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: P219603

Luminaire Tested: **MRZ-1-REC-X-4-L40-97-NFL-UNV-X-STD-HEX**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P219603  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14871)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: RSA  
Catalog Number: MRZ-1-REC-X-4-L40-97-NFL-UNV-X-STD-HEX  
Description: MRZ INTEGRAL LED DOWNLIGHT  
25 DEGREE NARROW FLOOD OPTIC WITH HEX LOUVER, LIGHT LEVEL 4  
Light Source: (1) 4000K CCT, 97 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 919.8 lumens  
Efficiency: N/A  
Efficacy: 58.2 lumens/watt  
Spacing Criteria (0/90/45): 0.36 / 0.36 / 0.35  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

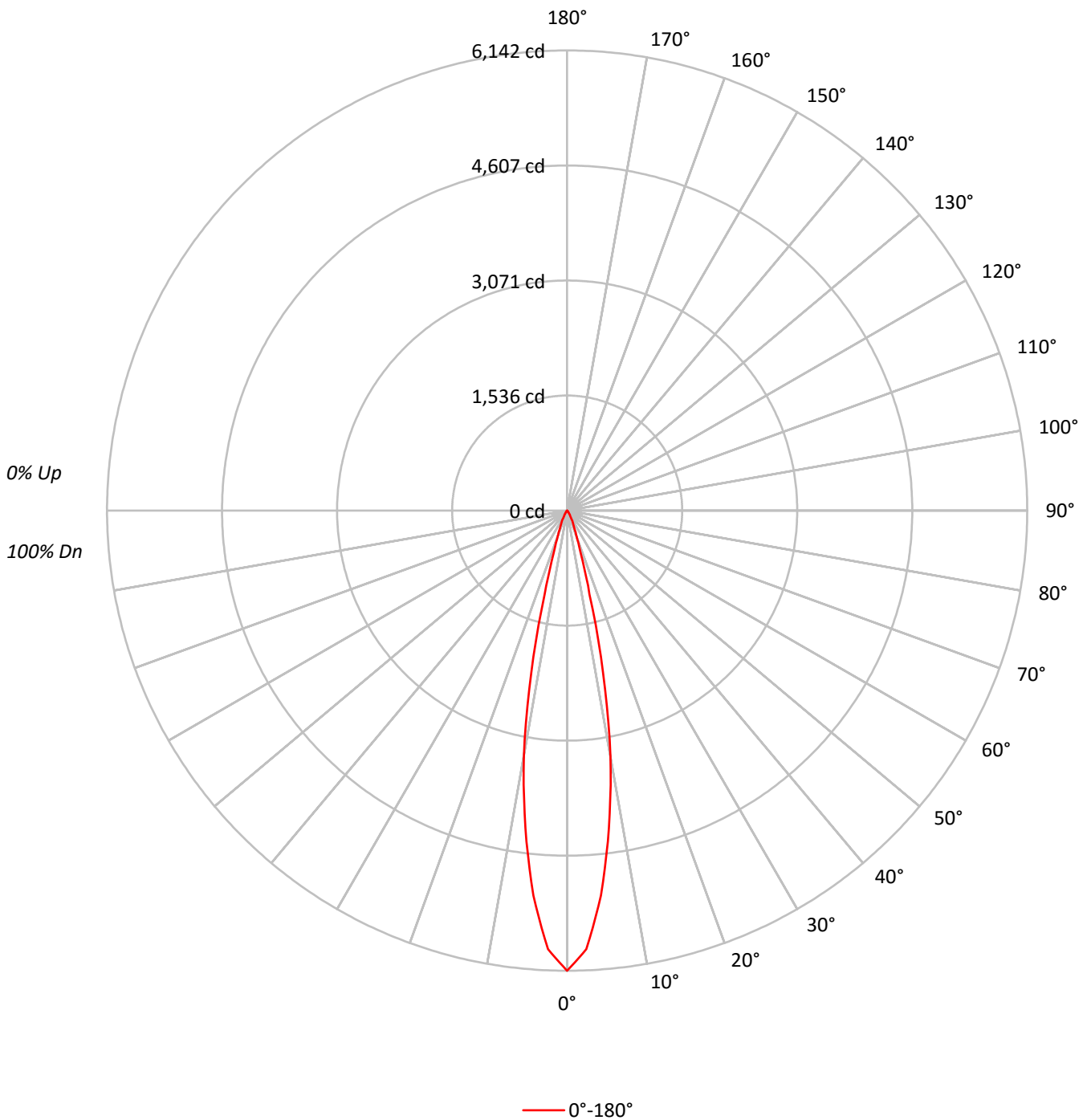
Input Watts (W): 15.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	115	113	112	110	113	111	110	108	107	106	105	104	103	102	100	100	99	97
2	112	109	106	104	110	107	105	103	104	102	100	101	100	98	99	97	96	95
3	109	105	101	99	107	103	100	98	101	99	97	99	97	95	97	95	94	92
4	106	101	98	95	105	100	97	94	98	95	93	96	94	92	95	93	91	90
5	103	98	94	92	102	97	94	91	96	93	91	94	92	90	93	91	89	88
6	101	95	92	89	100	95	91	89	93	90	88	92	90	88	91	89	87	86
7	99	93	89	87	98	92	89	86	91	88	86	90	88	86	89	87	85	84
8	96	91	87	84	95	90	87	84	89	86	84	88	86	84	88	85	83	82
9	94	88	85	82	94	88	85	82	87	84	82	87	84	82	86	83	82	81
10	92	87	83	81	92	86	83	81	86	82	80	85	82	80	84	82	80	79

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

	0°
0°	3030436
5°	2554672
10°	1669051
15°	588679
20°	189751
25°	98370
30°	45861
35°	21020
40°	9790
45°	5303
50°	2303
55°	1290
60°	1480
65°	0
70°	0
75°	0
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	433.9	47.2
10°-20°	367.1	39.9
20°-30°	86.2	9.4
30°-40°	24.1	2.6
40°-50°	6.0	0.7
50°-60°	1.8	0.2
60°-70°	0.5	0.1
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	887.2	96.5
0°-40°	911.4	99.1
0°-60°	919.3	99.9
0°-90°	919.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	919.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	6142	
5°	5158	434
15°	1152	367
25°	181	86
35°	35	24
45°	8	6
55°	2	2
65°	0	1
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	6142.2
2.5°	5858.2
5°	5158.2
7.5°	4271.4
10°	3331.5
12.5°	2213.9
15°	1152.5
17.5°	595.2
20°	361.4
22.5°	250.5
25°	180.7
27.5°	124.5
30°	80.5
32.5°	53.1
35°	34.9
37.5°	22.8
40°	15.2
42.5°	10.6
45°	7.6
47.5°	4.6
50°	3.0
52.5°	3.0
55°	1.5
57.5°	1.5
60°	1.5
62.5°	1.5
65°	0.0
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)