

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: P219564

Luminaire Tested: **MRZ-1-REC-X-3-L40-97-NFL-UNV-X-STD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P219564  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14859)  
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-3-L40-97-NFL-UNV-X-STD  
Description: MRZ INTEGRAL LED DOWNLIGHT  
25 DEGREE NARROW FLOOD OPTIC, LIGHT LEVEL 3  
Light Source: (1) 4000K CCT, 97 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1036.7 lumens  
Efficiency: N/A  
Efficacy: 85.7 lumens/watt  
Spacing Criteria (0/90/45): 0.41 / 0.41 / 0.37  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

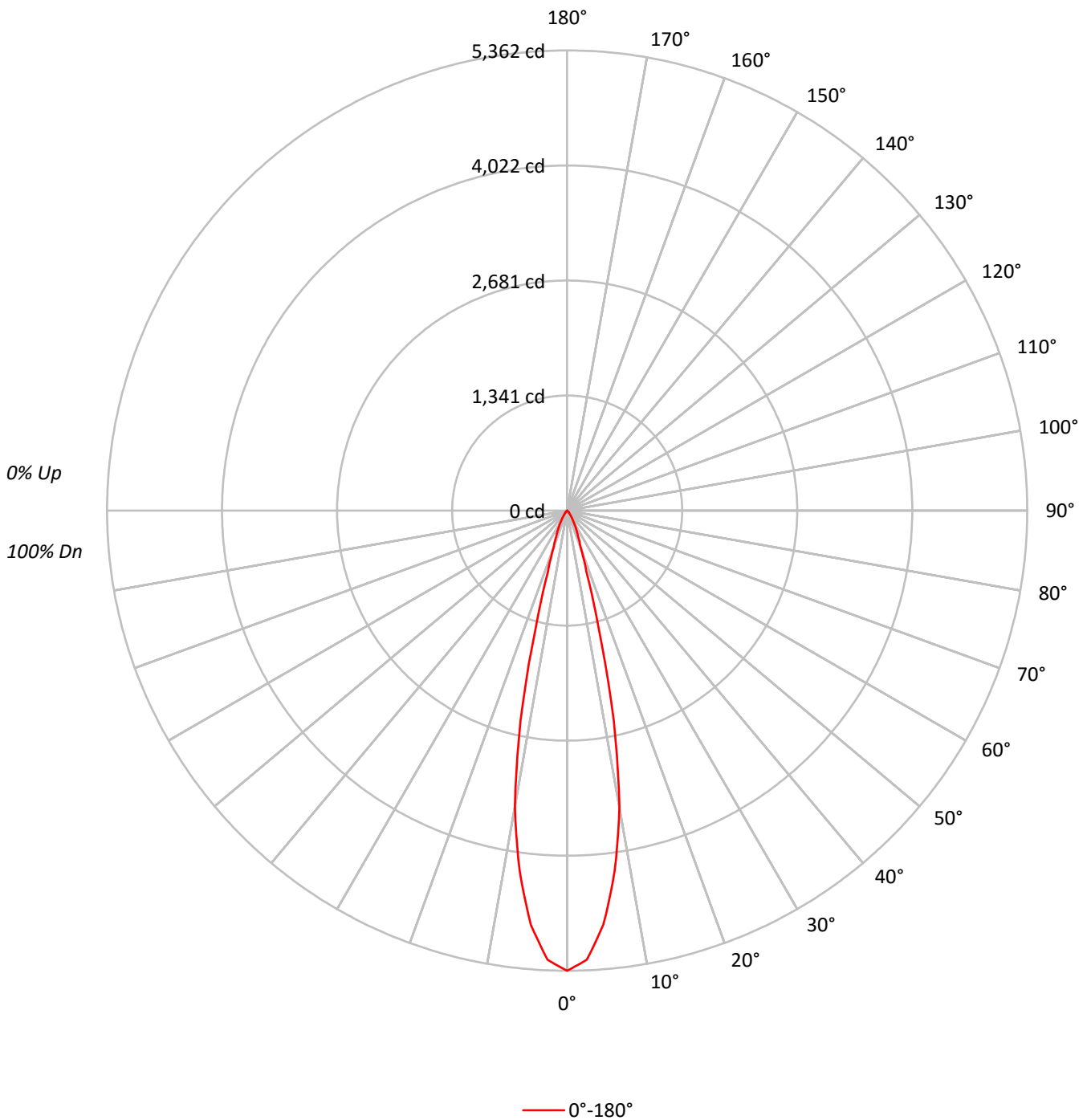
Input Watts (W): 12.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P219564

CATALOG NUMBER: MRZ-1-REC-X-3-L40-97-NFL-UNV-X-STD

### Luminous Intensity Polar Plot





TEST NUMBER: P219564

CATALOG NUMBER: MRZ-1-REC-X-3-L40-97-NFL-UNV-X-STD

**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	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	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
1	115	113	111	109	113	111	109	108	107	106	104	103	102	101	100	99	98	98	97	97	97	97	97	97	97	97	97	97	97	97	97	97		
2	111	108	105	102	109	106	104	101	103	101	99	100	99	97	98	96	95	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94		
3	108	103	100	97	106	102	99	96	100	97	95	97	95	93	95	93	92	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91		
4	105	99	96	93	103	98	95	92	96	93	91	95	92	90	93	91	89	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88		
5	102	96	92	89	100	95	91	89	94	90	88	92	89	87	91	88	86	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85		
6	99	93	89	86	98	92	88	86	91	88	85	90	87	85	88	86	84	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83		
7	96	90	86	83	95	89	86	83	88	85	83	87	84	82	86	84	82	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81		
8	94	87	83	81	93	87	83	81	86	83	80	85	82	80	84	82	80	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79		
9	91	85	81	78	91	85	81	78	84	80	78	83	80	78	82	80	78	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77		
10	89	83	79	76	89	83	79	76	82	78	76	81	78	76	81	78	76	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75		

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

	0°
0°	2645501
5°	2398614
10°	1756574
15°	716221
20°	244355
25°	142846
30°	79816
35°	42884
40°	22929
45°	14932
50°	6371
55°	4043
60°	2368
65°	1401
70°	1731
75°	2288
80°	0
85°	0



TEST NUMBER: P219564

CATALOG NUMBER: MRZ-1-REC-X-3-L40-97-NFL-UNV-X-STD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	419.1	40.4
10°-20°	423.7	40.9
20°-30°	123.8	11.9
30°-40°	47.4	4.6
40°-50°	15.9	1.5
50°-60°	4.3	0.4
60°-70°	1.6	0.2
70°-80°	0.8	0.1
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°	966.6	93.2
0°-40°	1014.0	97.8
0°-60°	1034.3	99.8
0°-90°	1036.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1036.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	5362	
5°	4843	419
15°	1402	424
25°	262	124
35°	71	47
45°	21	16
55°	5	4
65°	1	2
75°	1	1
85°	0	0
90°	0	



TEST NUMBER: P219564

CATALOG NUMBER: MRZ-1-REC-X-3-L40-97-NFL-UNV-X-STD

**CANDELA DISTRIBUTION (FULL):**

0°	
0°	5362.0
2.5°	5238.5
5°	4843.1
7.5°	4239.9
10°	3506.2
12.5°	2505.3
15°	1402.2
17.5°	744.5
20°	465.4
22.5°	345.5
25°	262.4
27.5°	195.9
30°	140.1
32.5°	100.9
35°	71.2
37.5°	49.9
40°	35.6
42.5°	27.3
45°	21.4
47.5°	13.1
50°	8.3
52.5°	5.9
55°	4.7
57.5°	3.6
60°	2.4
62.5°	2.4
65°	1.2
67.5°	1.2
70°	1.2
72.5°	1.2
75°	1.2
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)