

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: P226173

Luminaire Tested: **MRZ-1-REC-X-1-L40-80-NFL-UNV-X-STD-HEX**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226173  
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-1-L40-80-NFL-UNV-X-STD-HEX  
Description: MRZ INTEGRAL LED DOWNLIGHT  
25 DEGREE NARROW FLOOD OPTIC WITH HEX LOUVER, LIGHT LEVEL 1  
Light Source: (1) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 440.5 lumens  
Efficiency: N/A  
Efficacy: 81.6 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

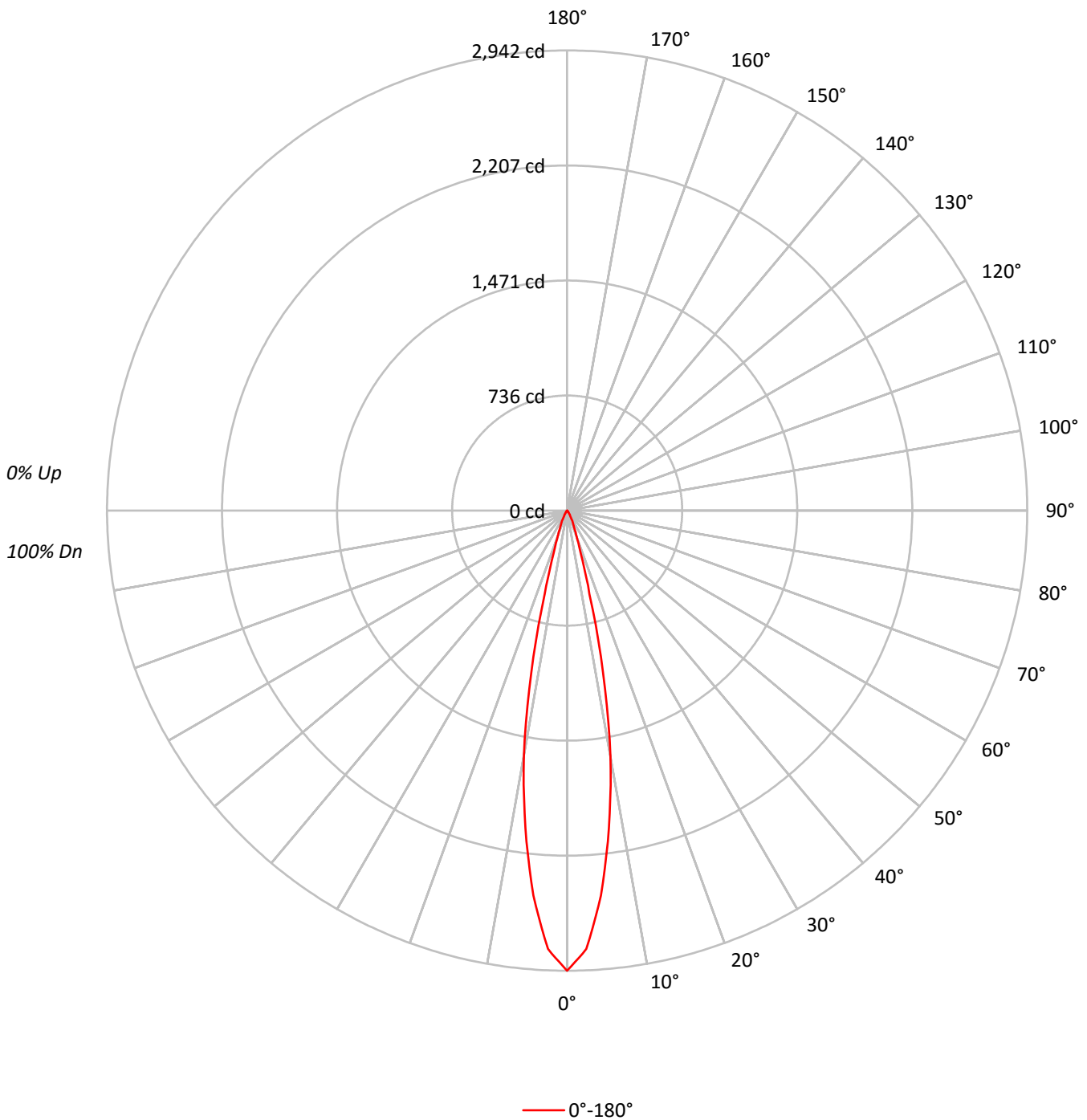
Input Watts (W): 5.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P226173

CATALOG NUMBER: MRZ-1-REC-X-1-L40-80-NFL-UNV-X-STD-HEX

### Luminous Intensity Polar Plot





TEST NUMBER: P226173

CATALOG NUMBER: MRZ-1-REC-X-1-L40-80-NFL-UNV-X-STD-HEX

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

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

0°	
0°	1451424
5°	1223600
10°	799431
15°	281953
20°	90885
25°	47089
30°	21991
35°	10058
40°	4637
45°	2582
50°	1075
55°	602
60°	691
65°	0
70°	0
75°	0
80°	0
85°	0



TEST NUMBER: P226173

CATALOG NUMBER: MRZ-1-REC-X-1-L40-80-NFL-UNV-X-STD-HEX

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.8	47.2
10°-20°	175.8	39.9
20°-30°	41.3	9.4
30°-40°	11.5	2.6
40°-50°	2.9	0.7
50°-60°	0.9	0.2
60°-70°	0.3	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°	424.9	96.5
0°-40°	436.5	99.1
0°-60°	440.2	99.9
0°-90°	440.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	440.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2942	
5°	2471	208
15°	552	176
25°	86	41
35°	17	12
45°	4	3
55°	1	1
65°	0	0
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P226173

CATALOG NUMBER: MRZ-1-REC-X-1-L40-80-NFL-UNV-X-STD-HEX

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2941.8
2.5°	2805.8
5°	2470.6
7.5°	2045.9
10°	1595.7
12.5°	1060.3
15°	552.0
17.5°	285.1
20°	173.1
22.5°	120.0
25°	86.5
27.5°	59.6
30°	38.6
32.5°	25.4
35°	16.7
37.5°	10.9
40°	7.2
42.5°	5.1
45°	3.7
47.5°	2.1
50°	1.4
52.5°	1.4
55°	0.7
57.5°	0.7
60°	0.7
62.5°	0.7
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)