

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: P226133

Luminaire Tested: **MRZ-1-REC-X-1-L30-97-NFL-UNV-X-STD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226133
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-1-L30-97-NFL-UNV-X-STD
Description: MRZ INTEGRAL LED DOWNLIGHT
25 DEGREE NARROW FLOOD OPTIC, LIGHT LEVEL 1
Light Source: (1) 3000K CCT, 97 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 455.9 lumens
Efficiency: N/A
Efficacy: 84.4 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

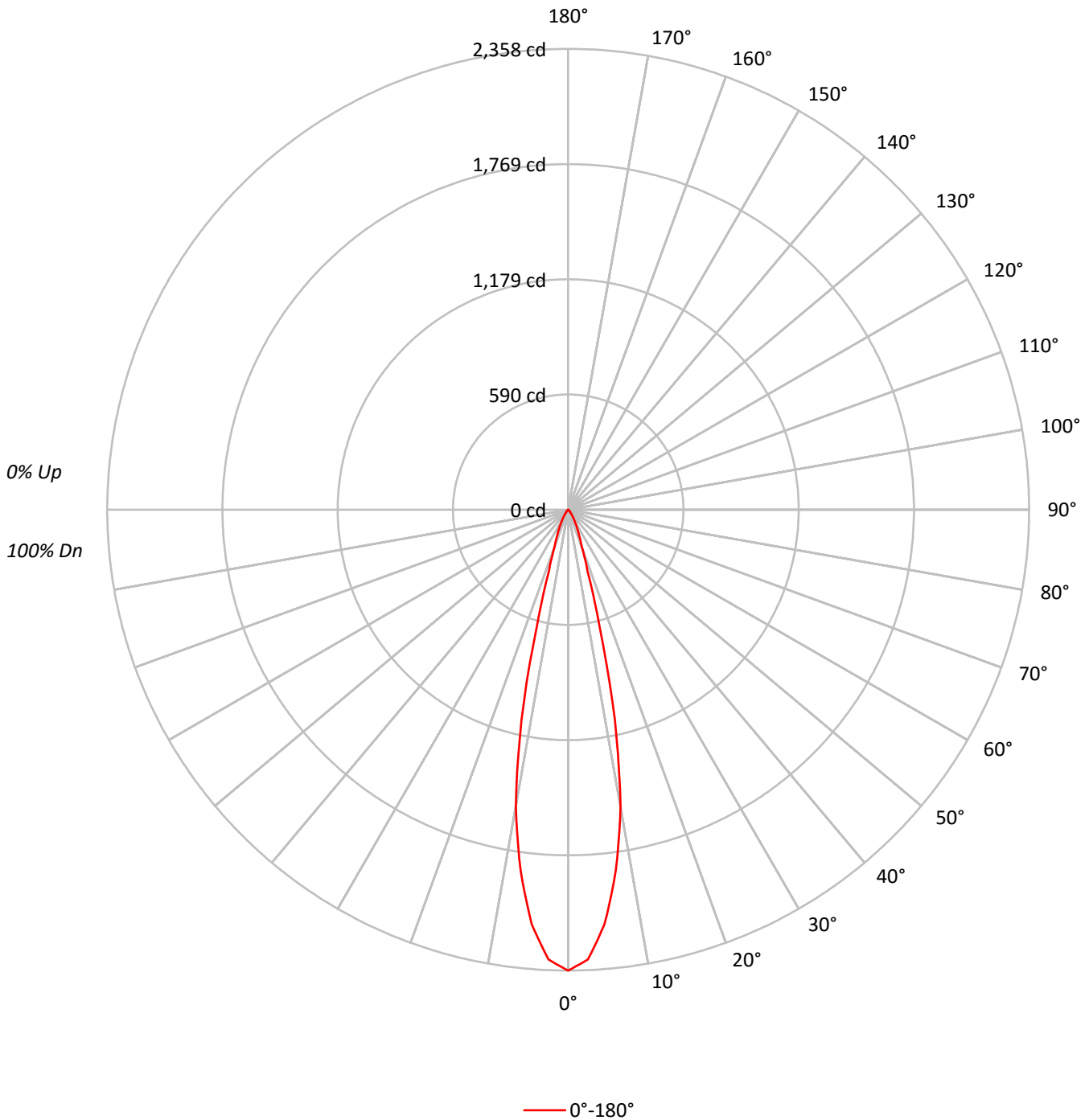
Input Watts (W): 5.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	1163537
5°	1054962
10°	772578
15°	315052
20°	107476
25°	62822
30°	35094
35°	18852
40°	10047
45°	6559
50°	2840
55°	1806
60°	1085
65°	584
70°	721
75°	953
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.3	40.4
10°-20°	186.3	40.9
20°-30°	54.4	11.9
30°-40°	20.8	4.6
40°-50°	7.0	1.5
50°-60°	1.9	0.4
60°-70°	0.7	0.2
70°-80°	0.3	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°	425.1	93.2
0°-40°	446.0	97.8
0°-60°	454.9	99.8
0°-90°	455.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	455.9	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2358	
5°	2130	184
15°	617	186
25°	115	54
35°	31	21
45°	9	7
55°	2	2
65°	0	1
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2358.3
2.5°	2304.0
5°	2130.1
7.5°	1864.8
10°	1542.1
12.5°	1101.8
15°	616.8
17.5°	327.4
20°	204.7
22.5°	151.9
25°	115.4
27.5°	86.1
30°	61.6
32.5°	44.4
35°	31.3
37.5°	22.0
40°	15.6
42.5°	12.1
45°	9.4
47.5°	5.7
50°	3.7
52.5°	2.6
55°	2.1
57.5°	1.6
60°	1.1
62.5°	1.1
65°	0.5
67.5°	0.5
70°	0.5
72.5°	0.5
75°	0.5
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)