

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: P226150

Luminaire Tested: **MRZ-1-REC-X-1-L35-80-NFL-UNV-X-STD-SNT**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226150  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14874)  
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-L35-80-NFL-UNV-X-STD-SNT  
Description: MRZ INTEGRAL LED DOWNLIGHT  
25 DEGREE NARROW FLOOD OPTIC WITH SNOOT, LIGHT LEVEL 1  
Light Source: (1) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 587.9 lumens  
Efficiency: N/A  
Efficacy: 108.9 lumens/watt  
Spacing Criteria (0/90/45): 0.42 / 0.41 / 0.38  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

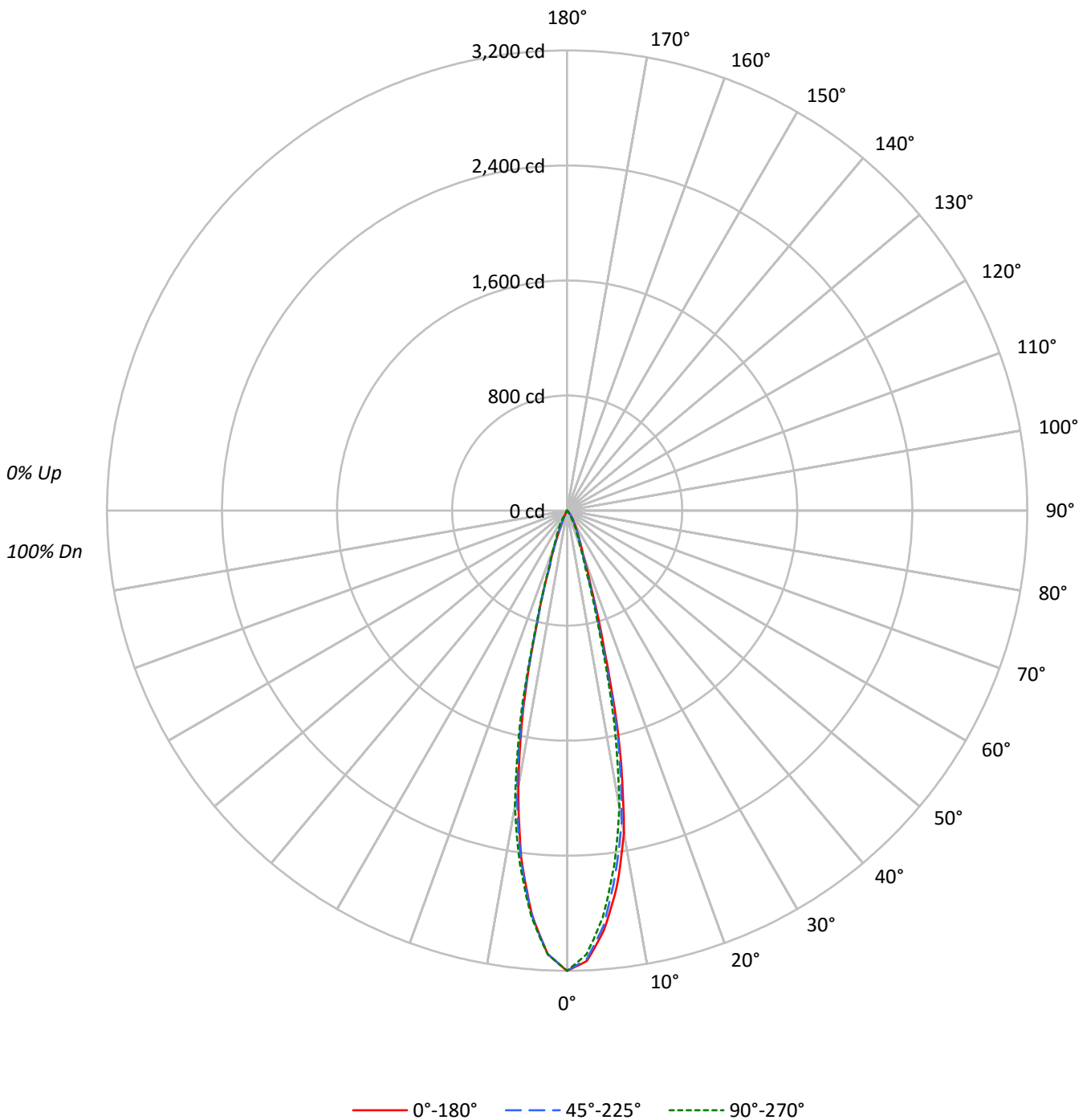
Input Watts (W): 5.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	
1	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97	97	97	97	
2	112	108	105	103	110	107	104	102	104	102	100	101	99	98	98	97	96	94	94	94	94	
3	108	104	101	98	107	103	100	97	100	98	96	98	96	94	96	94	93	92	92	92	92	
4	105	100	97	94	104	99	96	93	97	95	92	96	93	91	94	92	90	89	89	89	89	
5	103	97	93	90	101	96	93	90	95	92	89	93	91	89	92	90	88	87	87	87	87	
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	85	85	85	
7	98	92	88	85	97	91	87	85	90	87	84	89	86	84	88	86	84	83	83	83	83	
8	95	89	85	83	94	89	85	83	88	85	82	87	84	82	86	84	82	81	81	81	81	
9	93	87	83	81	92	86	83	80	86	83	80	85	82	80	84	82	80	79	79	79	79	
10	91	85	81	79	90	84	81	79	84	81	78	83	80	78	83	80	78	77	77	77	77	

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

	0°	90°	180°
0°	1578864	1578864	1578864
5°	1451372	1406303	1394912
10°	1139804	1048223	979236
15°	505829	430336	411283
20°	168276	137036	123490
25°	93307	78446	25749
30°	53894	28200	8204
35°	30657	8252	3012
40°	16166	4573	1868
45°	8024	3000	488
50°	4375	1612	0
55°	3097	1204	0
60°	2072	691	0
65°	1634	817	0
70°	1010	0	0
75°	1334	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	248.5	42.3
10°-20°	256.6	43.6
20°-30°	58.9	10.0
30°-40°	17.0	2.9
40°-50°	4.7	0.8
50°-60°	1.4	0.2
60°-70°	0.6	0.1
70°-80°	0.3	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°	564.0	95.9
0°-40°	581.0	98.8
0°-60°	587.1	99.9
0°-90°	587.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	587.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3200	3200	3200	3200	3200	
5°	2930	2898	2840	2825	2816	259
15°	990	903	842	797	805	289
25°	171	165	144	53	47	83
35°	51	47	14	6	5	33
45°	12	11	4	1	1	10
55°	4	3	1	0	0	3
65°	1	1	1	0	0	1
75°	1	1	0	0	0	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	3200.1	3200.1	3200.1	3200.1	3200.1	3200.1	3200.1	3200.1	3200.1
2.5°	3135.6	3134.8	3121.2	3106.9	3088.2	3089.7	3086.8	3091.1	3089.0
5°	2930.5	2914.7	2897.5	2866.0	2839.5	2827.9	2825.1	2815.8	2816.5
7.5°	2641.5	2607.8	2559.1	2517.5	2495.2	2466.6	2454.4	2428.6	2439.4
10°	2275.1	2231.4	2187.6	2136.0	2092.3	2045.0	2008.4	1984.7	1954.6
12.5°	1689.3	1654.1	1636.3	1568.9	1516.5	1480.0	1459.9	1402.5	1403.2
15°	990.3	946.5	902.8	868.3	842.5	828.9	796.6	788.7	805.2
17.5°	529.2	509.8	481.2	449.6	431.6	418.8	408.0	403.7	397.2
20°	320.5	314.8	298.2	277.4	261.0	249.5	238.8	235.9	235.2
22.5°	231.6	228.7	218.0	202.9	187.1	160.6	128.4	121.9	124.1
25°	171.4	169.3	164.9	153.5	144.1	79.6	53.0	50.9	47.3
27.5°	128.4	126.9	121.9	114.0	96.8	35.2	29.4	27.2	27.2
30°	94.6	93.9	91.1	83.2	49.5	20.1	16.5	15.1	14.4
32.5°	69.5	69.5	66.7	59.5	22.2	12.9	10.0	9.3	8.6
35°	50.9	50.9	47.3	40.9	13.7	8.6	5.7	5.7	5.0
37.5°	36.6	35.9	33.7	25.8	10.0	5.7	4.3	4.3	3.6
40°	25.1	25.1	22.9	15.8	7.1	4.3	3.6	2.9	2.9
42.5°	17.2	17.2	15.8	10.0	5.7	3.6	2.1	2.1	2.1
45°	11.5	11.5	10.7	7.1	4.3	2.1	1.4	1.4	0.7
47.5°	7.9	7.9	7.1	5.0	2.9	1.4	0.7	0.7	0.7
50°	5.7	5.7	5.0	3.6	2.1	1.4	0.7	0.7	0.0
52.5°	4.3	4.3	4.3	2.9	1.4	0.7	0.0	0.0	0.0
55°	3.6	3.6	2.9	2.1	1.4	0.7	0.0	0.0	0.0
57.5°	2.9	2.9	2.1	1.4	0.7	0.7	0.0	0.0	0.0
60°	2.1	2.1	2.1	1.4	0.7	0.0	0.0	0.0	0.0
62.5°	1.4	1.4	1.4	0.7	0.7	0.0	0.0	0.0	0.0
65°	1.4	1.4	1.4	0.7	0.7	0.0	0.0	0.0	0.0
67.5°	0.7	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0
70°	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0
72.5°	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0
75°	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0
77.5°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)