

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: P219678

Luminaire Tested: **MRZ-1-REC-X-2-L27-97-NFL-UNV-X-STD-SNT**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P219678
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-2-L27-97-NFL-UNV-X-STD-SNT
Description: MRZ INTEGRAL LED DOWNLIGHT
25 DEGREE NARROW FLOOD OPTIC WITH SNOOT, LIGHT LEVEL2
Light Source: (1) 2700K CCT, 97 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 600.0 lumens
Efficiency: N/A
Efficacy: 68.2 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

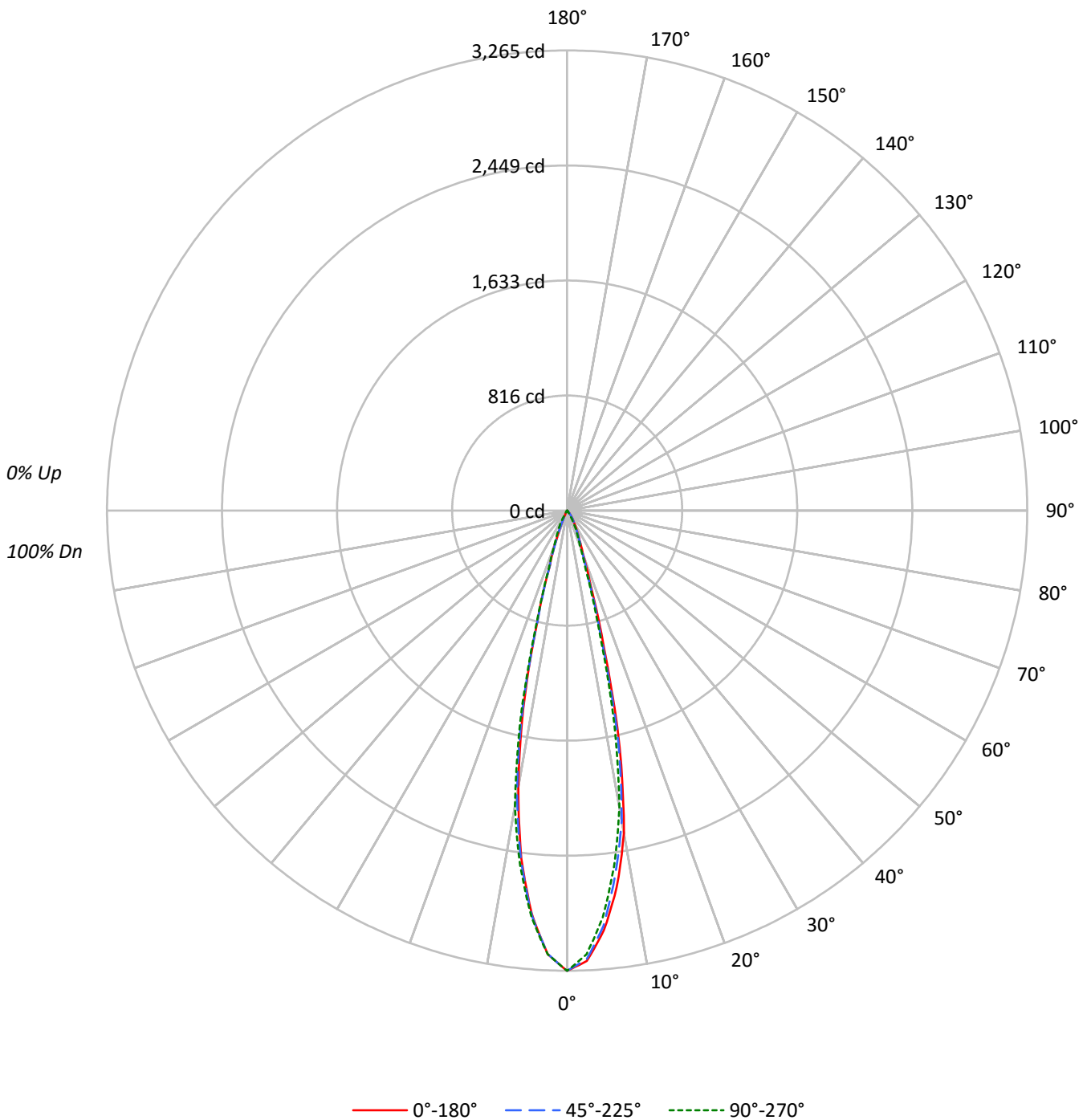
Input Watts (W): 8.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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		
1	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97	97	97	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	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	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	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	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	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	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	81	81	81		
9	93	87	83	81	92	86	83	80	86	82	80	85	82	80	84	82	80	79	79	79	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	77	77	77		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1611032	1611032	1611032
5°	1480939	1434929	1423340
10°	1163050	1069565	999176
15°	516096	439121	419660
20°	171689	139819	126010
25°	95213	80079	26294
30°	55034	28770	8318
35°	31260	8372	3072
40°	16488	4702	1868
45°	8164	3070	488
50°	4529	1689	0
55°	3183	1290	0
60°	2171	691	0
65°	1751	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°	253.5	42.3
10°-20°	261.9	43.6
20°-30°	60.1	10.0
30°-40°	17.3	2.9
40°-50°	4.8	0.8
50°-60°	1.5	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°	575.5	95.9
0°-40°	592.8	98.8
0°-60°	599.1	99.9
0°-90°	600.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	600.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3265	3265	3265	3265	3265	
5°	2990	2957	2897	2883	2874	264
15°	1010	921	860	813	822	295
25°	175	168	147	54	48	84
35°	52	48	14	6	5	34
45°	12	11	4	2	1	10
55°	4	3	2	0	0	3
65°	2	2	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°	3265.3	3265.3	3265.3	3265.3	3265.3	3265.3	3265.3	3265.3	3265.3
2.5°	3199.5	3198.7	3184.8	3170.2	3151.2	3152.6	3149.7	3154.1	3151.9
5°	2990.2	2974.1	2956.6	2924.4	2897.3	2885.6	2882.7	2873.1	2873.9
7.5°	2695.4	2661.0	2611.2	2568.8	2546.1	2516.8	2504.4	2478.1	2489.0
10°	2321.5	2276.9	2232.2	2179.6	2134.9	2086.6	2049.3	2025.2	1994.4
12.5°	1723.7	1687.9	1669.6	1600.8	1547.4	1510.1	1489.6	1431.1	1431.8
15°	1010.4	965.8	921.1	886.0	859.7	845.8	812.9	804.8	821.6
17.5°	540.0	520.2	490.9	458.7	440.4	427.3	416.3	411.9	405.3
20°	327.0	321.2	304.4	283.1	266.3	254.6	243.6	240.7	240.0
22.5°	236.3	233.4	222.4	207.1	191.0	163.9	131.0	124.4	126.6
25°	174.9	172.7	168.3	156.6	147.1	81.2	54.1	51.9	48.3
27.5°	131.0	129.5	124.4	116.3	98.8	35.9	30.0	27.8	27.8
30°	96.6	95.8	92.9	84.9	50.5	20.5	16.8	15.4	14.6
32.5°	71.0	71.0	68.0	60.7	22.7	13.2	10.2	9.5	8.8
35°	51.9	51.9	48.3	41.7	13.9	8.8	5.9	5.9	5.1
37.5°	37.3	36.6	34.4	26.3	10.2	5.9	4.4	4.4	3.7
40°	25.6	25.6	23.4	16.1	7.3	4.4	3.7	2.9	2.9
42.5°	17.6	17.6	16.1	10.2	5.9	3.7	2.2	2.2	2.2
45°	11.7	11.7	11.0	7.3	4.4	2.2	1.5	1.5	0.7
47.5°	8.0	8.0	7.3	5.1	2.9	1.5	0.7	0.7	0.7
50°	5.9	5.9	5.1	3.7	2.2	1.5	0.7	0.7	0.0
52.5°	4.4	4.4	4.4	2.9	1.5	0.7	0.0	0.0	0.0
55°	3.7	3.7	2.9	2.2	1.5	0.7	0.0	0.0	0.0
57.5°	2.9	2.9	2.2	1.5	0.7	0.7	0.0	0.0	0.0
60°	2.2	2.2	2.2	1.5	0.7	0.0	0.0	0.0	0.0
62.5°	1.5	1.5	1.5	0.7	0.7	0.0	0.0	0.0	0.0
65°	1.5	1.5	1.5	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)