

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: P219667

Luminaire Tested: **MRZ-1-REC-X-1H-L30-80-NFL-UNV-X-STD-SNT**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P219667
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-1H-L30-80-NFL-UNV-X-STD-SNT
Description: MRZ INTEGRAL LED DOWNLIGHT
25 DEGREE NARROW FLOOD OPTIC WITH SNOOT, LIGHT LEVEL 1
Light Source: (1) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 625.0 lumens
Efficiency: N/A
Efficacy: 91.9 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

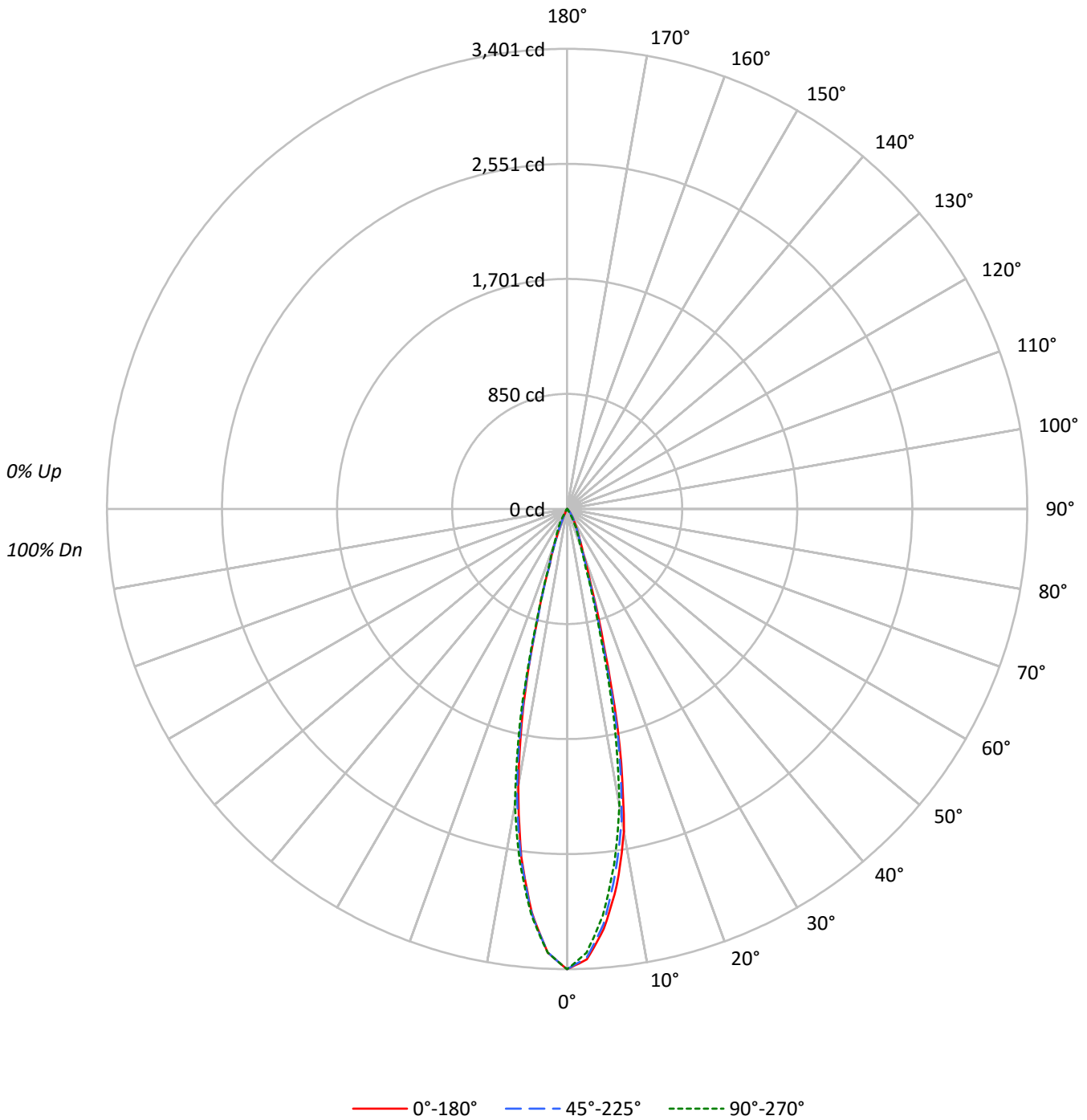
Input Watts (W): 6.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	96	91	87	85	90	87	84	89	86	84	88	85	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	82	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°	1678132	1678132	1678132
5°	1542599	1494658	1482573
10°	1211496	1114103	1040808
15°	537600	457407	437129
20°	178882	145647	131261
25°	99132	83400	27383
30°	57312	29967	8660
35°	32585	8733	3192
40°	17196	4895	1932
45°	8512	3210	558
50°	4682	1765	0
55°	3269	1290	0
60°	2270	789	0
65°	1751	934	0
70°	1154	0	0
75°	1525	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.1	42.3
10°-20°	272.8	43.6
20°-30°	62.6	10.0
30°-40°	18.0	2.9
40°-50°	5.0	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°	599.4	95.9
0°-40°	617.5	98.8
0°-60°	624.1	99.9
0°-90°	625.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	625.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3401	3401	3401	3401	3401	
5°	3115	3080	3018	3003	2994	275
15°	1052	960	896	847	856	307
25°	182	175	153	56	50	88
35°	54	50	14	6	5	35
45°	12	11	5	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°	3401.3	3401.3	3401.3	3401.3	3401.3	3401.3	3401.3	3401.3	3401.3
2.5°	3332.7	3331.9	3317.4	3302.2	3282.4	3283.9	3280.9	3285.4	3283.1
5°	3114.7	3097.9	3079.7	3046.1	3017.9	3005.7	3002.7	2992.8	2993.5
7.5°	2807.6	2771.8	2719.9	2675.7	2652.1	2621.6	2608.7	2581.2	2592.7
10°	2418.2	2371.7	2325.2	2270.3	2223.8	2173.5	2134.7	2109.5	2077.5
12.5°	1795.5	1758.2	1739.1	1667.5	1611.8	1573.0	1551.6	1490.7	1491.4
15°	1052.5	1006.0	959.5	922.9	895.5	881.0	846.7	838.3	855.8
17.5°	562.4	541.9	511.4	477.8	458.8	445.1	433.6	429.1	422.2
20°	340.7	334.6	317.0	294.9	277.4	265.2	253.8	250.7	250.0
22.5°	246.2	243.1	231.7	215.7	198.9	170.7	136.4	129.6	131.8
25°	182.1	179.9	175.3	163.1	153.2	84.6	56.4	54.1	50.3
27.5°	136.4	134.9	129.6	121.2	102.9	37.3	31.2	29.0	29.0
30°	100.6	99.8	96.8	88.4	52.6	21.3	17.5	16.0	15.2
32.5°	73.9	73.9	70.9	63.3	23.6	13.7	10.7	9.9	9.1
35°	54.1	54.1	50.3	43.4	14.5	9.1	6.1	6.1	5.3
37.5°	38.9	38.1	35.8	27.4	10.7	6.1	4.6	4.6	3.8
40°	26.7	26.7	24.4	16.8	7.6	4.6	3.8	3.0	3.0
42.5°	18.3	18.3	16.8	10.7	6.1	3.8	2.3	2.3	2.3
45°	12.2	12.2	11.4	7.6	4.6	2.3	1.5	1.5	0.8
47.5°	8.4	8.4	7.6	5.3	3.0	1.5	0.8	0.8	0.8
50°	6.1	6.1	5.3	3.8	2.3	1.5	0.8	0.8	0.0
52.5°	4.6	4.6	4.6	3.0	1.5	0.8	0.0	0.0	0.0
55°	3.8	3.8	3.0	2.3	1.5	0.8	0.0	0.0	0.0
57.5°	3.0	3.0	2.3	1.5	0.8	0.8	0.0	0.0	0.0
60°	2.3	2.3	2.3	1.5	0.8	0.0	0.0	0.0	0.0
62.5°	1.5	1.5	1.5	0.8	0.8	0.0	0.0	0.0	0.0
65°	1.5	1.5	1.5	0.8	0.8	0.0	0.0	0.0	0.0
67.5°	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0
70°	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
72.5°	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
75°	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
77.5°	0.8	0.8	0.8	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)