

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: P219671

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P219671
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-L30-97-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, 97 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 479.7 lumens
Efficiency: N/A
Efficacy: 70.6 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

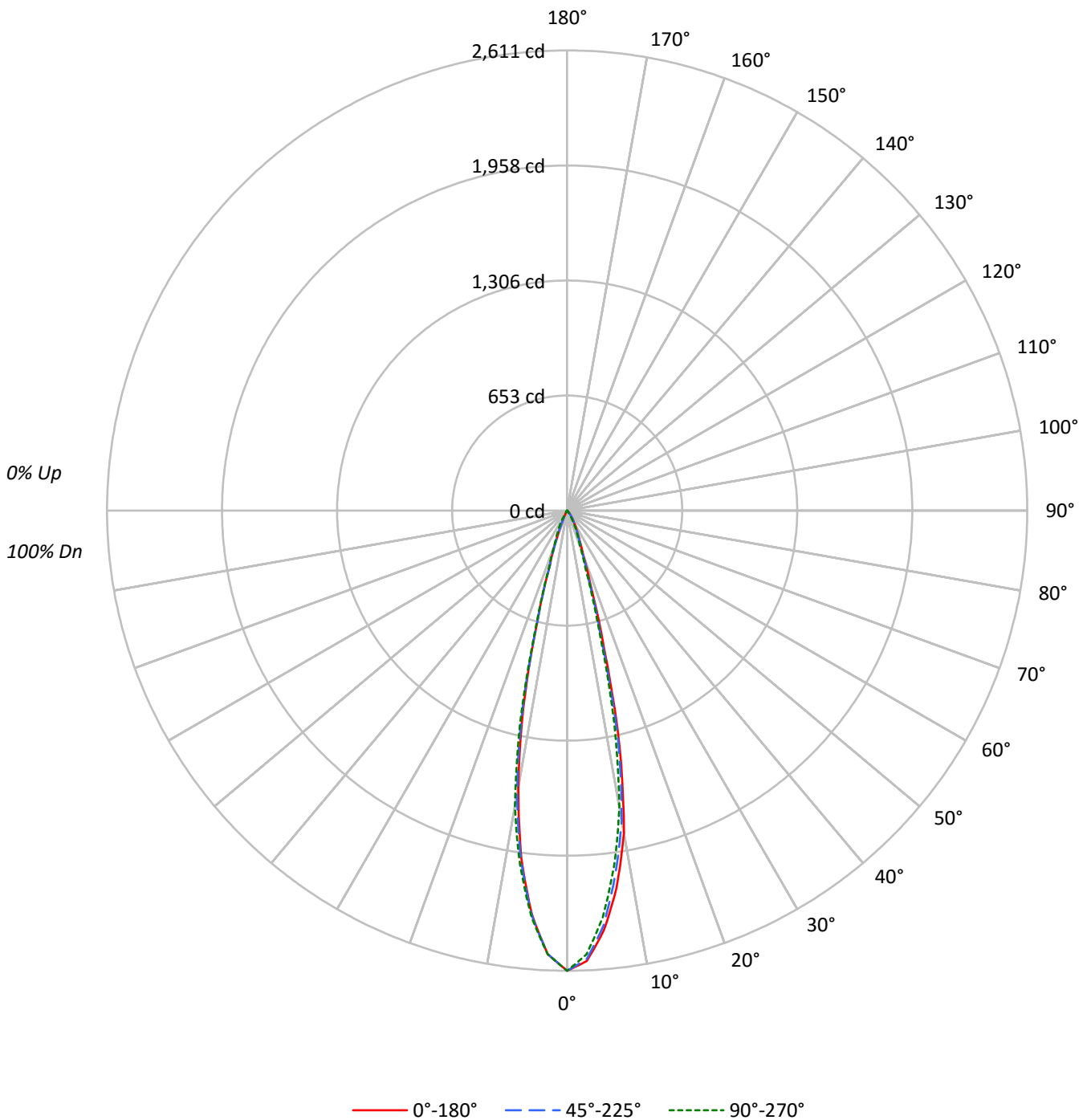
Input Watts (W): 6.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1288115	1288115	1288115
5°	1184127	1147329	1138068
10°	929939	855191	798930
15°	412662	351113	335585
20°	137299	111782	100756
25°	76105	64020	21013
30°	43981	23016	6666
35°	24996	6686	2469
40°	13203	3736	1481
45°	6559	2442	419
50°	3608	1382	0
55°	2495	1032	0
60°	1776	592	0
65°	1401	700	0
70°	866	0	0
75°	1144	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.7	42.3
10°-20°	209.4	43.6
20°-30°	48.0	10.0
30°-40°	13.8	2.9
40°-50°	3.9	0.8
50°-60°	1.2	0.2
60°-70°	0.5	0.1
70°-80°	0.2	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°	460.1	95.9
0°-40°	474.0	98.8
0°-60°	479.1	99.9
0°-90°	479.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	479.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2611	2611	2611	2611	2611	
5°	2391	2364	2317	2305	2298	211
15°	808	736	687	650	657	236
25°	140	134	118	43	39	67
35°	42	39	11	5	4	27
45°	9	9	4	1	1	8
55°	3	2	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	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2610.8	2610.8	2610.8	2610.8	2610.8	2610.8	2610.8	2610.8	2610.8
2.5°	2558.2	2557.6	2546.5	2534.8	2519.6	2520.8	2518.4	2521.9	2520.2
5°	2390.9	2378.0	2364.0	2338.2	2316.6	2307.2	2304.9	2297.3	2297.9
7.5°	2155.1	2127.6	2087.9	2053.9	2035.8	2012.4	2002.4	1981.4	1990.2
10°	1856.2	1820.5	1784.8	1742.7	1707.0	1668.4	1638.6	1619.3	1594.7
12.5°	1378.3	1349.6	1335.0	1280.0	1237.3	1207.4	1191.1	1144.3	1144.8
15°	807.9	772.2	736.5	708.4	687.4	676.3	649.9	643.5	657.0
17.5°	431.7	415.9	392.5	366.8	352.2	341.6	332.9	329.4	324.1
20°	261.5	256.8	243.4	226.4	212.9	203.6	194.8	192.5	191.9
22.5°	189.0	186.6	177.8	165.6	152.7	131.0	104.7	99.4	101.2
25°	139.8	138.1	134.5	125.2	117.6	64.9	43.3	41.5	38.6
27.5°	104.7	103.5	99.4	93.0	79.0	28.7	24.0	22.2	22.2
30°	77.2	76.6	74.3	67.9	40.4	16.4	13.5	12.3	11.7
32.5°	56.7	56.7	54.4	48.6	18.1	10.5	8.2	7.6	7.0
35°	41.5	41.5	38.6	33.3	11.1	7.0	4.7	4.7	4.1
37.5°	29.8	29.2	27.5	21.1	8.2	4.7	3.5	3.5	2.9
40°	20.5	20.5	18.7	12.9	5.8	3.5	2.9	2.3	2.3
42.5°	14.0	14.0	12.9	8.2	4.7	2.9	1.8	1.8	1.8
45°	9.4	9.4	8.8	5.8	3.5	1.8	1.2	1.2	0.6
47.5°	6.4	6.4	5.8	4.1	2.3	1.2	0.6	0.6	0.6
50°	4.7	4.7	4.1	2.9	1.8	1.2	0.6	0.6	0.0
52.5°	3.5	3.5	3.5	2.3	1.2	0.6	0.0	0.0	0.0
55°	2.9	2.9	2.3	1.8	1.2	0.6	0.0	0.0	0.0
57.5°	2.3	2.3	1.8	1.2	0.6	0.6	0.0	0.0	0.0
60°	1.8	1.8	1.8	1.2	0.6	0.0	0.0	0.0	0.0
62.5°	1.2	1.2	1.2	0.6	0.6	0.0	0.0	0.0	0.0
65°	1.2	1.2	1.2	0.6	0.6	0.0	0.0	0.0	0.0
67.5°	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0
70°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
72.5°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
75°	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
77.5°	0.6	0.6	0.6	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)