

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: LUMARK

Report Number: P195978

Luminaire Tested: **NAV-AF-06-D-UNV-5WQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195978
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-06-D-UNV-5WQ
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38336.1 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G4

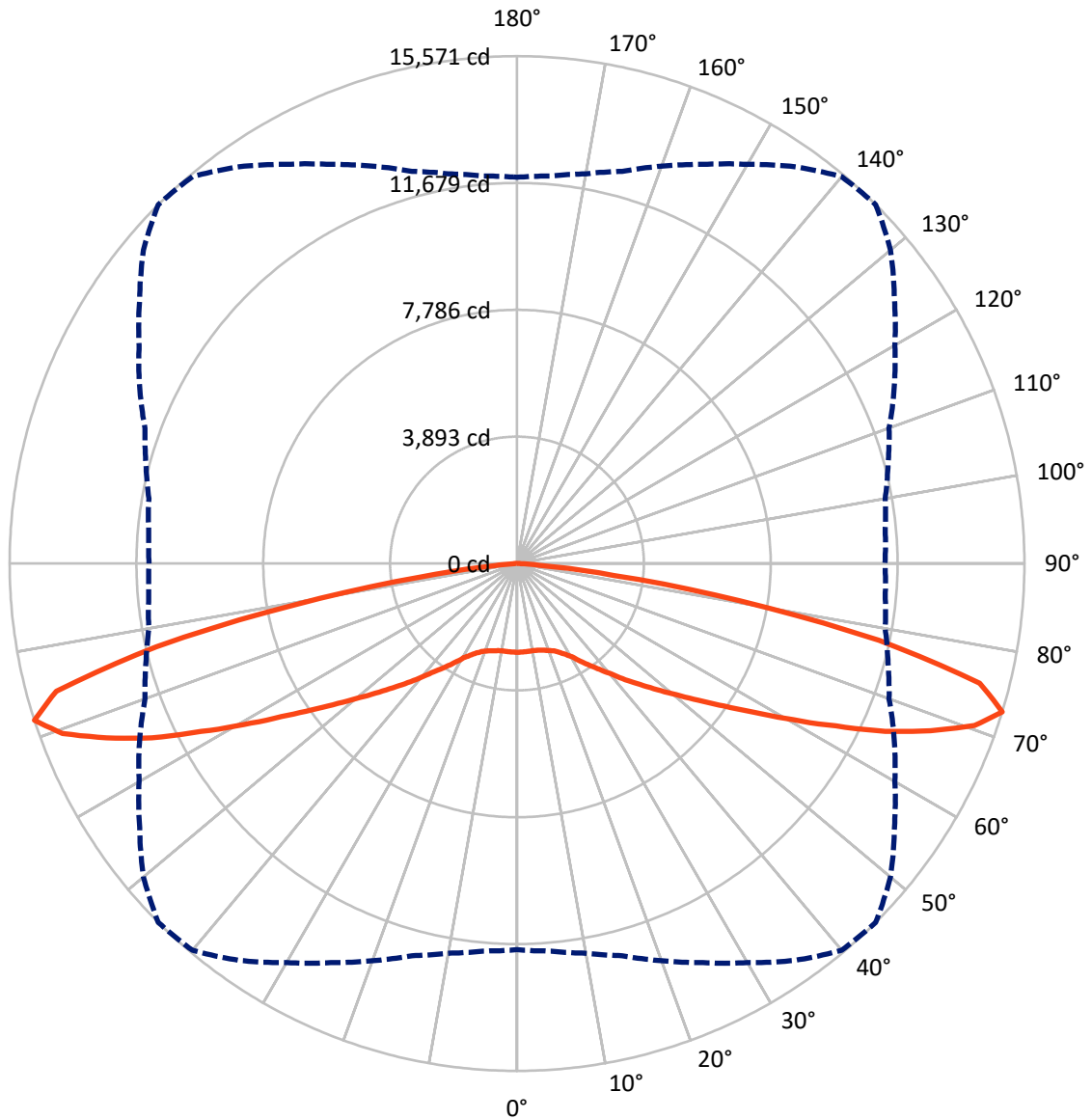
Input Watts (W): 333
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	19168.0	0.0	19168.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	19168.0	0.0	19168.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	38336.1	0.0	38336.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.1	0.7
10°-20°	787.3	2.1
20°-30°	1421.3	3.7
30°-40°	2424.3	6.3
40°-50°	4127.4	10.8
50°-60°	6642.4	17.3
60°-70°	11046.5	28.8
70°-80°	10686.2	27.9
80°-90°	940.5	2.5
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°-90°	38336.1	100.0
0°-180°	38336.1	100.0



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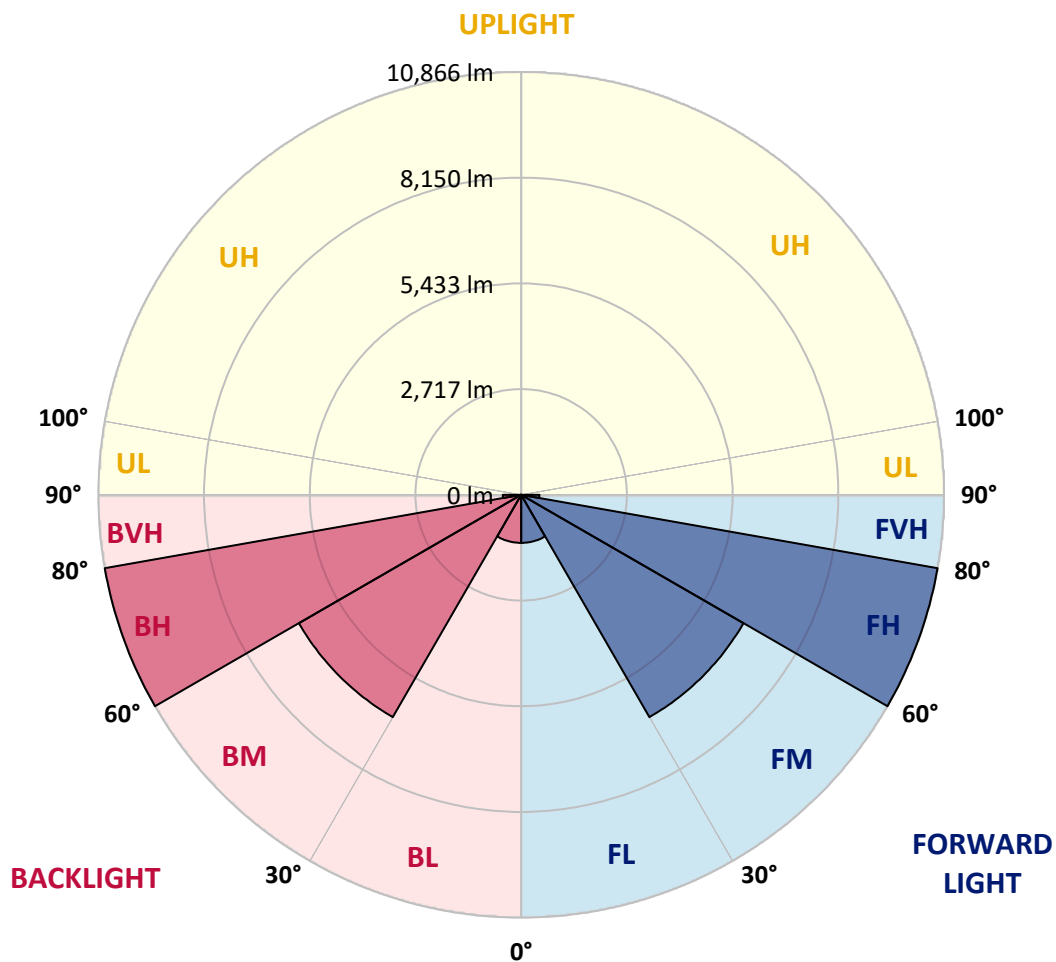
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1234.3	3.2			
FM	(30°-60°)	6597.1	17.2			
FH	(60°-80°)	10866.4	28.3			G4/12000
FVH	(80°-90°)	470.3	1.2			G3/500
BL	(0°-30°)	1234.3	3.2	B3/2500		
BM	(30°-60°)	6597.1	17.2	B4/8500		
BH	(60°-80°)	10866.4	28.3	B5		G4/12000
BVH	(80°-90°)	470.3	1.2			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2725.4	2725.4	2725.4	2725.4	2725.4	2725.4	2725.4	2725.4	2725.4	2725.4	2725.4
2.5°	2746.6	2746.6	2749.0	2746.6	2741.9	2739.6	2732.5	2727.8	2723.1	2720.6	2715.9
5°	2749.0	2749.0	2751.3	2749.0	2744.3	2739.6	2734.9	2727.8	2723.1	2718.3	2715.9
7.5°	2758.5	2760.8	2763.2	2760.8	2751.3	2746.6	2739.6	2732.5	2723.1	2718.3	2713.6
10°	2777.3	2777.3	2777.3	2775.0	2767.9	2758.5	2749.0	2741.9	2730.2	2718.3	2711.2
12.5°	2791.5	2793.9	2793.9	2789.1	2779.7	2767.9	2758.5	2751.3	2741.9	2732.5	2725.4
15°	2812.7	2812.7	2810.4	2800.9	2786.7	2777.3	2772.6	2770.3	2767.9	2763.2	2756.0
17.5°	2855.2	2852.8	2845.7	2831.6	2815.1	2808.0	2803.3	2803.3	2803.3	2800.9	2796.2
20°	2916.5	2916.5	2907.1	2883.5	2869.4	2862.3	2855.2	2855.2	2855.2	2848.1	2841.0
22.5°	3015.7	3018.0	3003.9	2975.6	2956.6	2942.5	2933.1	2925.9	2918.9	2914.2	2902.4
25°	3150.2	3147.8	3131.3	3095.9	3081.7	3067.5	3048.7	3036.8	3027.4	3020.4	3006.2
27.5°	3291.8	3289.4	3270.5	3239.8	3230.4	3209.1	3195.0	3178.5	3166.6	3154.9	3140.7
30°	3473.4	3461.7	3447.4	3423.9	3419.1	3402.6	3383.7	3360.2	3341.3	3322.4	3305.9
32.5°	3636.3	3636.3	3615.0	3603.2	3612.7	3605.6	3607.9	3593.7	3582.0	3574.9	3558.3
35°	3862.8	3862.8	3853.4	3839.1	3841.5	3825.0	3822.7	3825.0	3834.4	3834.4	3815.6
37.5°	4164.8	4169.5	4138.9	4134.2	4122.3	4098.8	4086.9	4091.7	4112.9	4124.6	4098.8
40°	4540.0	4549.5	4540.0	4509.3	4495.2	4455.1	4431.4	4431.4	4448.0	4459.8	4450.3
42.5°	4910.5	4926.9	4910.5	4886.8	4875.1	4844.4	4832.6	4842.0	4863.3	4877.4	4863.3
45°	5323.4	5335.2	5313.9	5285.7	5271.5	5255.0	5247.8	5255.0	5278.5	5292.7	5288.0
47.5°	5729.2	5745.8	5719.8	5708.1	5708.1	5691.5	5710.4	5729.2	5750.5	5783.6	5769.3
50°	6125.6	6146.9	6130.4	6132.8	6151.6	6182.3	6217.7	6255.4	6293.2	6328.6	6333.3
52.5°	6479.7	6512.6	6515.1	6557.5	6616.4	6663.7	6762.8	6845.4	6935.1	6965.7	6951.6
55°	6852.4	6897.2	6956.3	7022.4	7116.8	7213.4	7381.0	7529.6	7647.7	7720.8	7709.1
57.5°	7385.7	7430.6	7491.9	7600.4	7742.1	7874.2	8103.1	8334.3	8513.6	8624.6	8570.3
60°	8077.1	8124.3	8204.6	8320.2	8504.2	8683.5	8997.4	9330.1	9608.6	9735.9	9636.8
62.5°	8992.7	9037.5	9089.4	9242.8	9448.1	9679.4	10073.4	10500.5	10854.4	10977.2	10838.0
65°	10297.5	10351.9	10368.3	10493.4	10694.0	10908.7	11333.5	11814.8	12218.3	12418.9	12140.5
67.5°	11767.6	11788.9	11855.0	12001.3	12206.6	12400.0	12735.1	13190.5	13577.5	13688.4	13391.0
70°	12628.9	12671.4	12787.0	12989.9	13235.3	13539.8	13905.5	14396.3	14835.2	14887.1	14509.5
72.5°	11850.3	11937.5	12142.8	12459.0	12973.4	13513.8	14143.8	14868.2	15498.2	15571.4	14965.0
75°	9504.7	9603.9	9849.3	10196.1	10804.9	11607.2	12518.1	13605.9	14549.6	14670.0	13867.7
77.5°	5066.2	5188.9	5545.2	6012.4	6880.8	7942.6	9039.8	10281.1	11083.4	11354.7	10776.6
80°	1276.5	1342.6	1514.9	1788.6	2376.2	3232.7	4179.0	5514.5	6510.3	6932.6	6510.3
82.5°	495.5	545.1	592.3	625.3	681.9	799.9	1104.3	1800.4	2425.7	2987.3	2586.2
85°	191.1	203.0	292.6	332.7	332.7	365.7	420.0	495.5	613.5	670.1	561.6
87.5°	75.5	82.6	101.5	155.7	160.5	141.6	151.0	169.9	129.8	108.5	122.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2725.4	2725.4	2725.4	2725.4	2725.4	2725.4	2725.4	2725.4
2.5°	2713.6	2711.2	2706.5	2708.9	2706.5	2706.5	2706.5	2706.5
5°	2711.2	2711.2	2706.5	2706.5	2706.5	2708.9	2706.5	2706.5
7.5°	2708.9	2706.5	2701.8	2699.5	2699.5	2697.1	2697.1	2697.1
10°	2704.2	2699.5	2694.8	2692.4	2692.4	2687.7	2687.7	2687.7
12.5°	2715.9	2708.9	2704.2	2701.8	2701.8	2701.8	2704.2	2704.2
15°	2749.0	2734.9	2727.8	2725.4	2727.8	2732.5	2734.9	2737.2
17.5°	2784.4	2770.3	2758.5	2753.7	2756.0	2763.2	2770.3	2775.0
20°	2829.3	2817.4	2803.3	2798.6	2798.6	2808.0	2812.7	2819.8
22.5°	2892.9	2883.5	2871.7	2864.7	2859.9	2871.7	2878.8	2883.5
25°	2994.4	2985.0	2975.6	2968.5	2966.0	2977.9	2982.6	2985.0
27.5°	3128.9	3119.5	3114.8	3112.4	3105.3	3110.1	3117.1	3114.8
30°	3303.5	3310.6	3303.5	3303.5	3291.8	3296.5	3291.8	3287.0
32.5°	3537.2	3530.1	3508.8	3494.7	3478.1	3478.1	3471.1	3464.0
35°	3770.7	3747.2	3735.3	3742.5	3735.3	3740.1	3728.2	3716.5
37.5°	4046.8	4032.7	4030.3	4051.5	4046.8	4051.5	4051.5	4035.0
40°	4412.6	4403.1	4419.7	4455.1	4469.2	4466.8	4471.5	4450.3
42.5°	4832.6	4816.1	4823.1	4853.8	4870.4	4875.1	4872.7	4853.8
45°	5252.6	5257.4	5257.4	5290.4	5306.9	5316.3	5299.8	5292.7
47.5°	5726.9	5733.9	5717.5	5738.7	5743.5	5759.9	5745.8	5733.9
50°	6274.4	6248.4	6210.6	6217.7	6217.7	6213.0	6196.4	6182.3
52.5°	6885.5	6826.5	6755.7	6732.1	6706.2	6680.2	6647.1	6621.3
55°	7581.6	7480.1	7352.7	7293.7	7244.1	7185.2	7109.6	7083.7
57.5°	8388.6	8214.0	8044.1	7937.9	7810.4	7732.6	7635.8	7631.1
60°	9346.6	9110.6	8811.0	8652.8	8525.5	8433.4	8360.3	8331.9
62.5°	10453.3	10047.4	9724.2	9554.3	9405.6	9349.0	9257.0	9268.8
65°	11588.3	11175.3	10861.5	10724.6	10585.4	10547.6	10462.7	10493.4
67.5°	12817.7	12477.9	12133.4	12006.0	11878.5	11840.8	11753.5	11779.4
70°	13919.6	13487.8	13096.1	12846.0	12628.9	12454.3	12343.4	12298.5
72.5°	14139.1	13391.0	12775.2	12149.9	11788.9	11472.7	11342.9	11293.4
75°	12704.4	11543.5	10665.7	9931.8	9525.9	9065.8	9016.3	8947.9
77.5°	9882.2	8560.9	7499.0	6555.2	6010.0	5448.4	5255.0	5108.7
80°	5894.4	4530.5	3511.2	2461.1	2008.1	1616.4	1519.6	1418.1
82.5°	2109.5	1352.1	910.8	710.2	634.7	585.2	547.5	497.9
85°	509.7	429.4	405.9	368.1	363.4	309.1	219.4	195.9
87.5°	162.9	148.6	151.0	143.9	151.0	113.2	92.1	82.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)