

Scaled data based on original data using
LM-31-95 IESNA Approved Method for Photometric Testing of Roadway Luminaires
Using Incandescent Filament and High Intensity Discharge Lamps

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: 766068

Luminaire Tested: **HMX91SXXNM**

Issue Date: 3/3/2020

Test Information

Test Method: LM-31-95
Report Number: 766068
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: HMX91SXXNM
Description: 1000W HPS TYPE V HIGH MAST
Light Source: 1000W HPS CL E-25
Ballast/Driver: -

Summary

Lumens per Lamp: 140000 (1 lamp)
Luminaire Lumens: 106430.6 lumens
Efficiency: 76.0%
Efficacy: 106.4 lumens/watt
Luminous Opening: (L: 0 ' x W: -2.33 ' x H: 2 '
IES Classification: Type V - Short - Cutoff
BUG Rating: B5 - U2 - G5

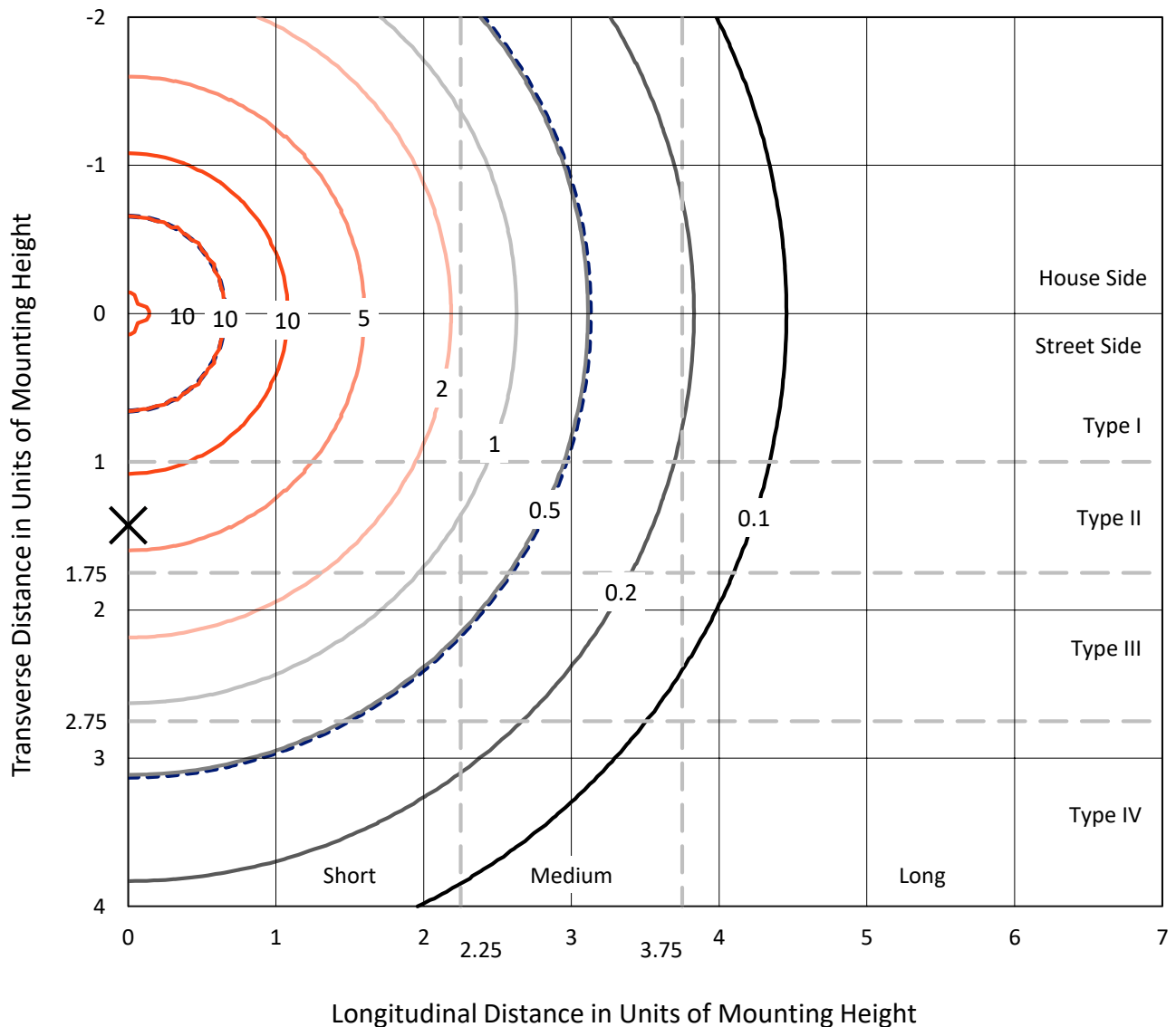
Input Watts (W): 1000
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

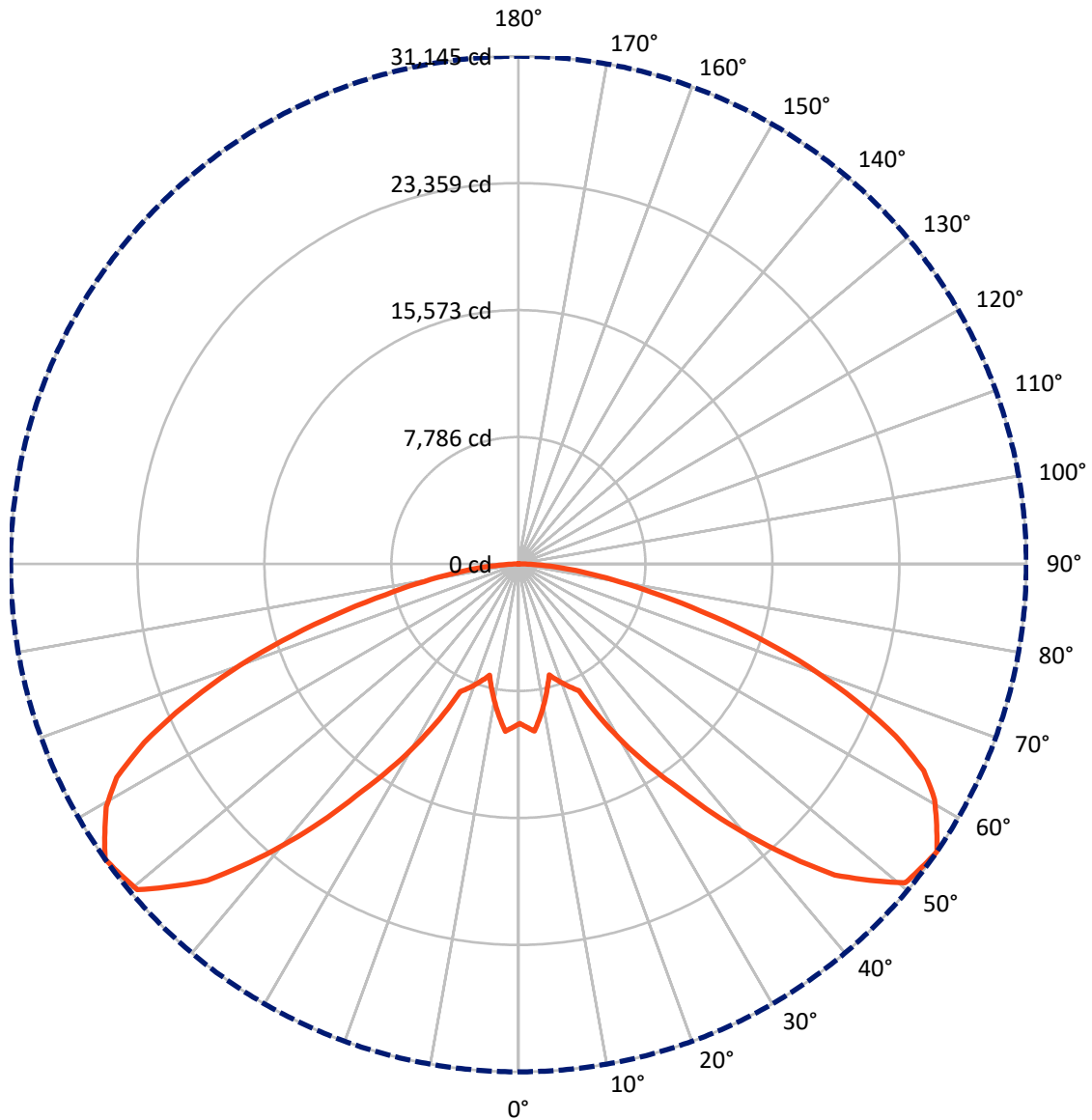
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11 fc
 Type V - Short - Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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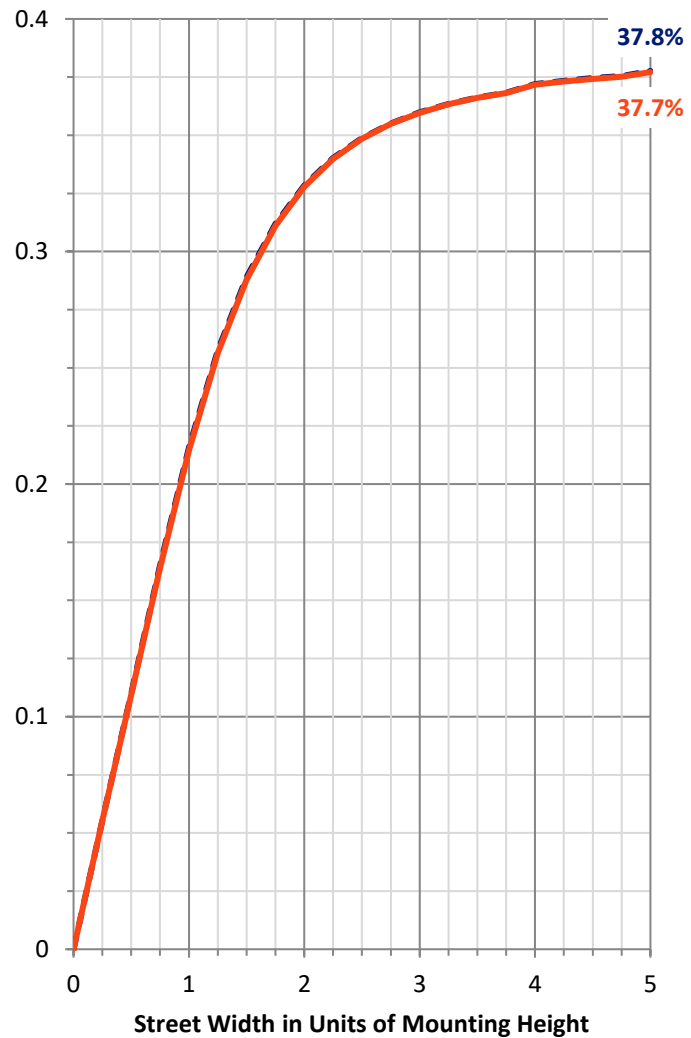
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|--------|----------|--------|----------|
| House Side | Lumens | 53184.2 | 31.1 | 53215.3 |
| | % Lamp | 38.0 | 0.0 | 38.0 |
| Street Side | Lumens | 53184.2 | 31.1 | 53215.3 |
| | % Lamp | 38.0 | 0.0 | 38.0 |
| Total | Lumens | 106368.4 | 62.3 | 106430.6 |
| | % Lamp | 76.0 | 0.0 | 76.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|----------|-----------|--------|
| 0°-10° | 918.1 | 0.9 | 0.7 |
| 10°-20° | 2337.4 | 2.2 | 1.7 |
| 20°-30° | 4756.3 | 4.5 | 3.4 |
| 30°-40° | 10918.6 | 10.3 | 7.8 |
| 40°-50° | 20437.0 | 19.2 | 14.6 |
| 50°-60° | 27436.0 | 25.8 | 19.6 |
| 60°-70° | 24677.1 | 23.2 | 17.6 |
| 70°-80° | 12533.3 | 11.8 | 9.0 |
| 80°-90° | 2711.6 | 2.5 | 1.9 |
| 90°-100° | 23.3 | 0.0 | 0.0 |
| 100°-110° | 12.7 | 0.0 | 0.0 |
| 110°-120° | 17.9 | 0.0 | 0.0 |
| 120°-130° | 7.2 | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 | 0.0 |
| 0°-90° | 106368.4 | 99.9 | 76.0 |
| 0°-180° | 106430.6 | 100.0 | 76.0 |



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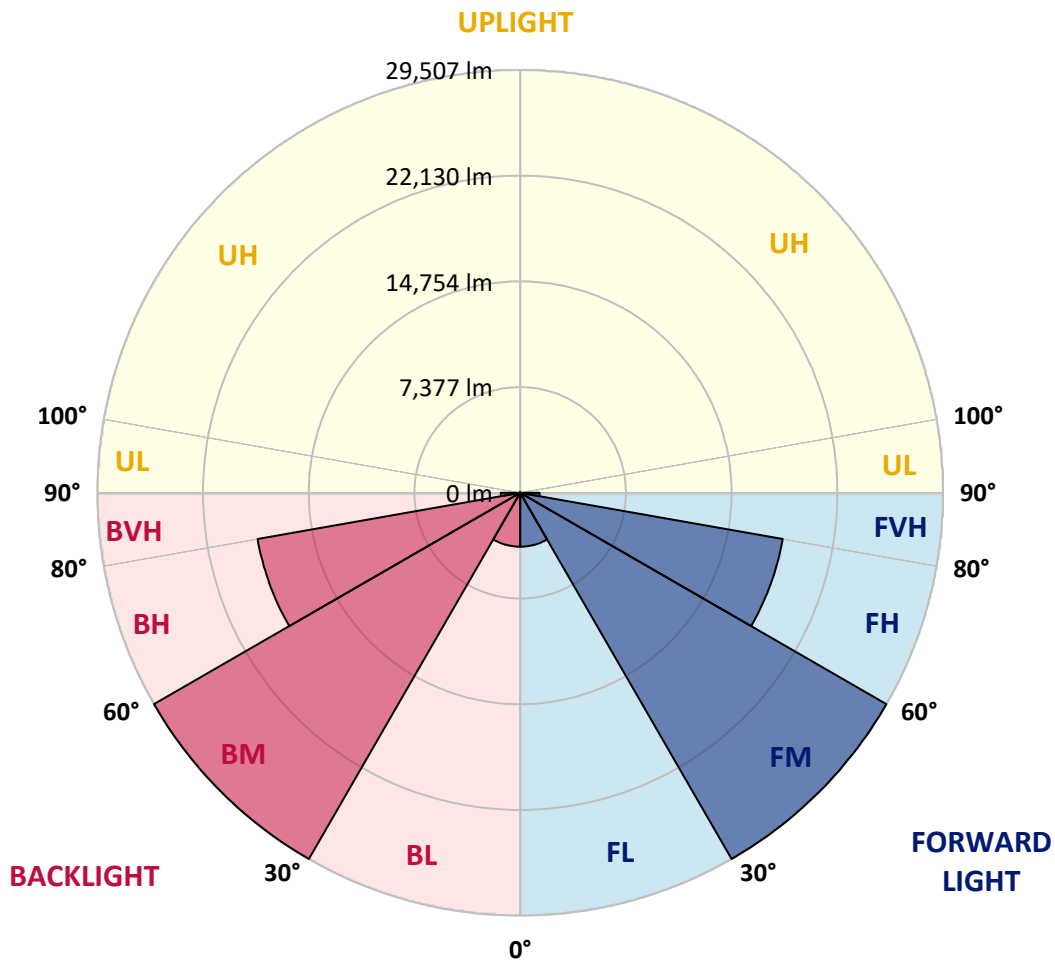
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Lamp | Zone Rating/Lumen Limit | | |
|----------------|---------|--------|-------------------------|-------|----|
| | | | B | U | G |
| FL (0°-30°) | 3758.9 | 2.7 | | | |
| FM (30°-60°) | 29507.0 | 21.1 | | | |
| FH (60°-80°) | 18605.2 | 13.3 | | | G5 |
| FVH (80°-90°) | 1355.8 | 1.0 | | | G5 |
| BL (0°-30°) | 3758.9 | 2.7 | B4/5000 | | |
| BM (30°-60°) | 29507.0 | 21.1 | B5 | | |
| BH (60°-80°) | 18605.2 | 13.3 | B5 | | G5 |
| BVH (80°-90°) | 1355.8 | 1.0 | | | G5 |
| UL (90°-100°) | 23.3 | 0.0 | | U2/50 | |
| UH (100°-180°) | 31.1 | 0.0 | | U2/50 | |
| Trapped Light | 33569.4 | 24.0 | | | |

BUG Rating: B5-U2-G5

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|-------|
| 0° | 9771 |
| 5° | 10292 |
| 15° | 7046 |
| 25° | 8599 |
| 35° | 16859 |
| 45° | 27206 |
| 50° | 30746 |
| 55° | 31145 |
| 60° | 29331 |
| 62.5° | 27895 |
| 65° | 25426 |
| 67.5° | 22280 |
| 70° | 18897 |
| 72.5° | 15242 |
| 75° | 11604 |
| 77.5° | 8361 |
| 80° | 5858 |
| 82.5° | 3870 |
| 85° | 2209 |
| 87.5° | 921 |
| 90° | 81 |
| 95° | 0 |
| 105° | 8 |
| 115° | 32 |
| 125° | 0 |
| 135° | 0 |
| 145° | 0 |
| 155° | 0 |
| 165° | 0 |
| 175° | 0 |
| 180° | 0 |

(END OF REPORT)