

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: 48312 _400MP

Luminaire Tested: **HMX40PXXDW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-31-95
Report Number: 48312 _400MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: HMX40PXXDW
Description: 400W MH TYPE V HIGH MAST
Light Source: 400 WATT PULSE-START CLEAR VBU BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 44000 (1 lamp)
Luminaire Lumens: 23291.3 lumens
Efficiency: 52.9%
Efficacy: 51.5 lumens/watt
Luminous Opening: (L: -2.33 ' x W: 0 ' x H: 2 '
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

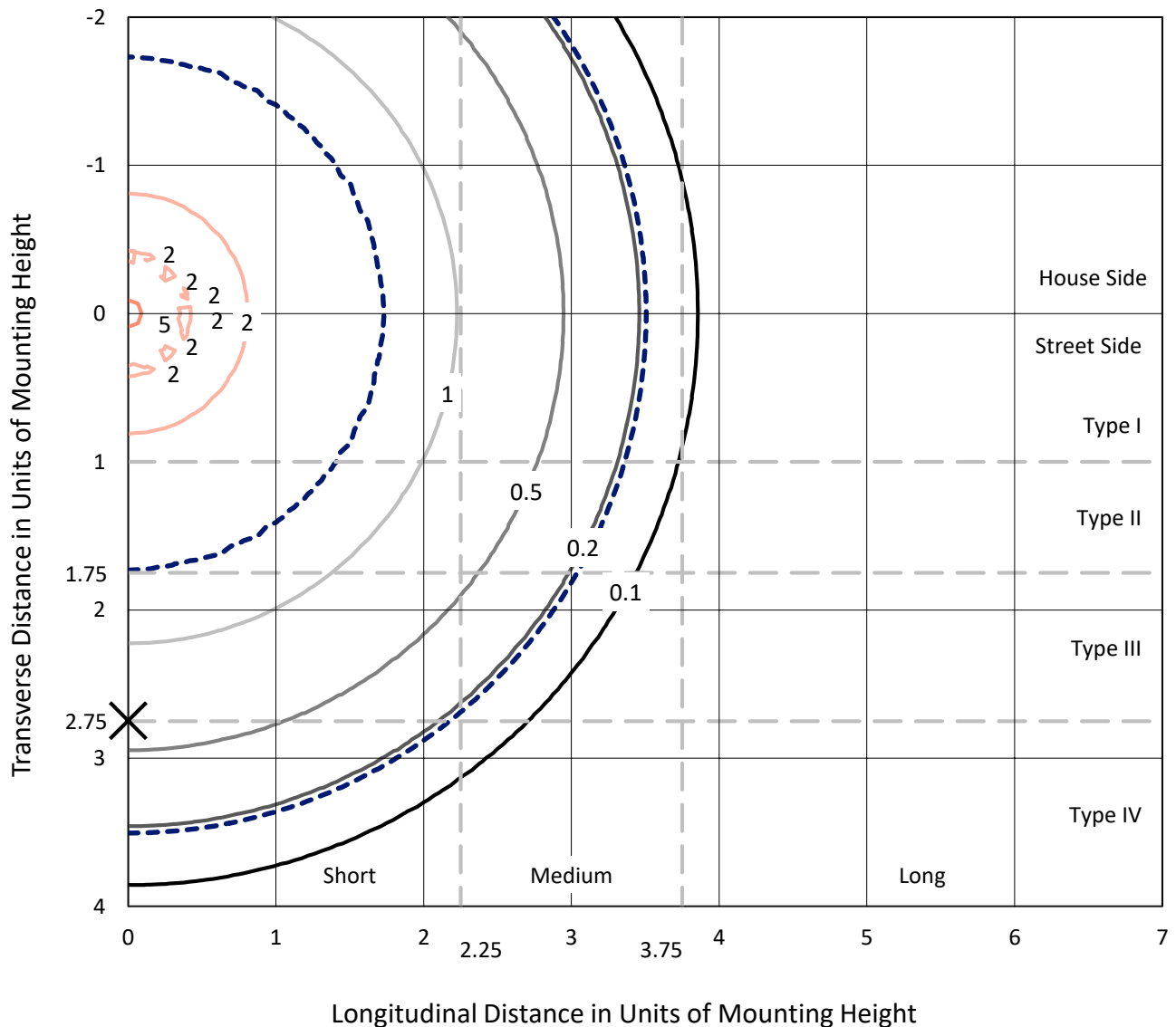
Input Watts (W): 452
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: 48312 _400MP
 CATALOG NUMBER: HMX40PXXDW

Iso-Footcandle Lines of Horizontal Illumination

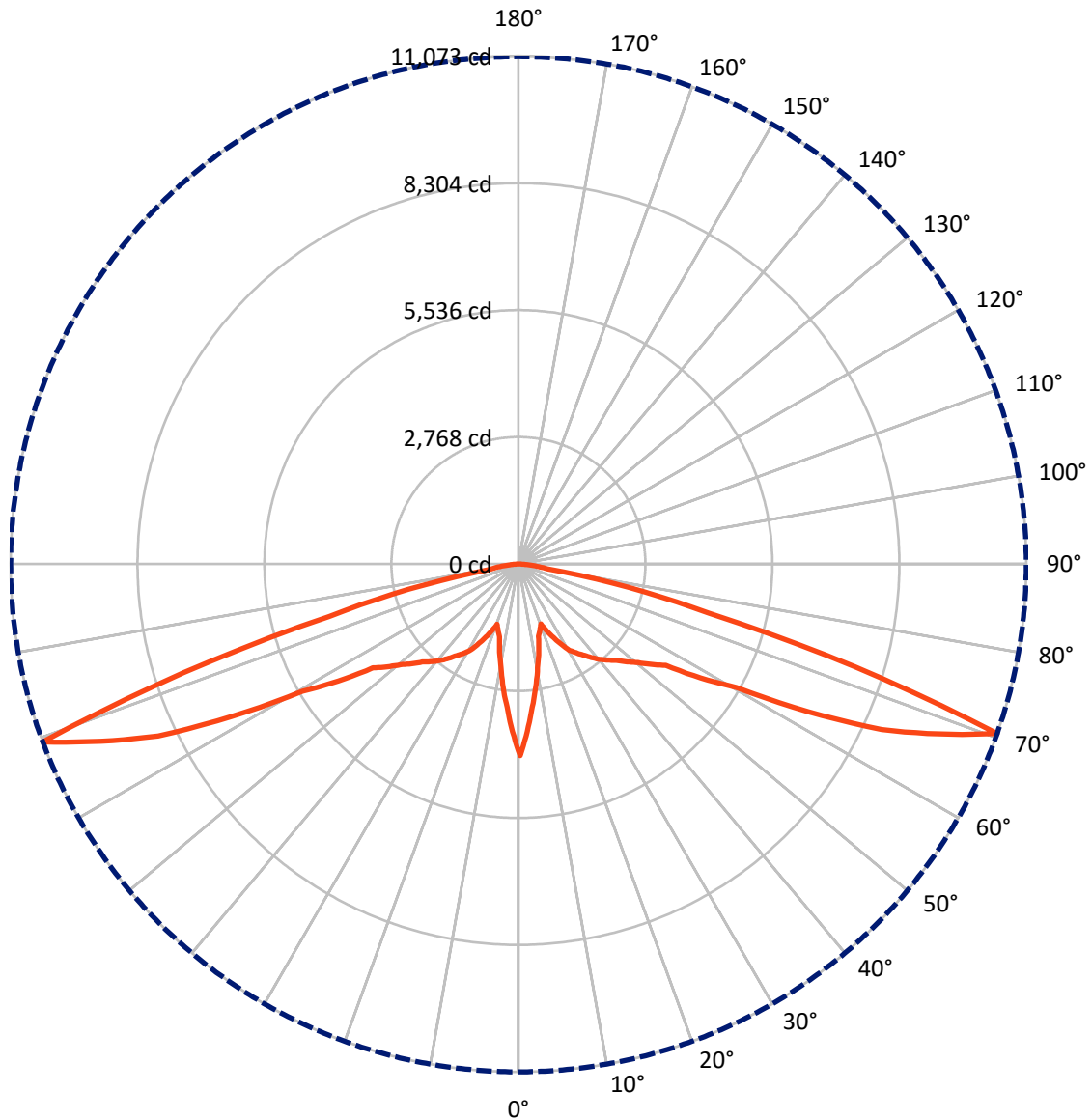
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: 48312 _400MP
CATALOG NUMBER: HMX40PXXDW

Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: 48312 _400MP
 CATALOG NUMBER: HMX40PXXDW

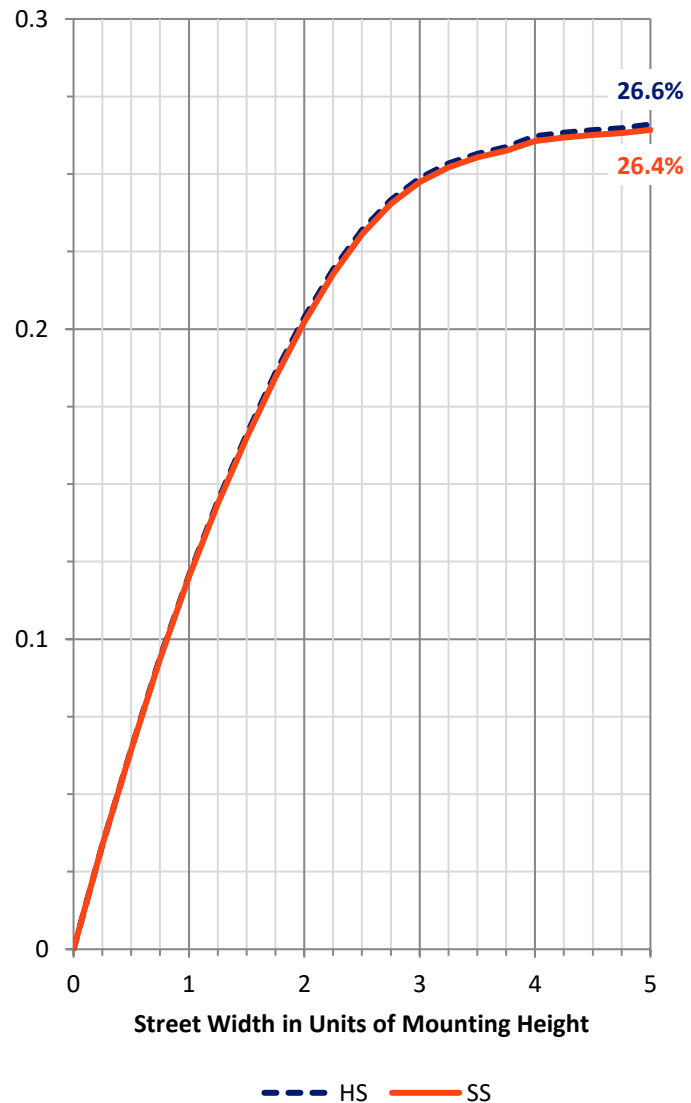
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11645.6	0.0	11645.6
	% Lamp	26.5	0.0	26.5
Street Side	Lumens	11645.6	0.0	11645.6
	% Lamp	26.5	0.0	26.5
Total	Lumens	23291.3	0.0	23291.3
	% Lamp	52.9	0.0	52.9

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	281.8	1.2	0.6
10°-20°	483.1	2.1	1.1
20°-30°	832.4	3.6	1.9
30°-40°	1541.9	6.6	3.5
40°-50°	2348.1	10.1	5.3
50°-60°	3747.1	16.1	8.5
60°-70°	8452.5	36.3	19.2
70°-80°	5330.7	22.9	12.1
80°-90°	273.6	1.2	0.6
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	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°	23291.3	100.0	52.9
0°-180°	23291.3	100.0	52.9

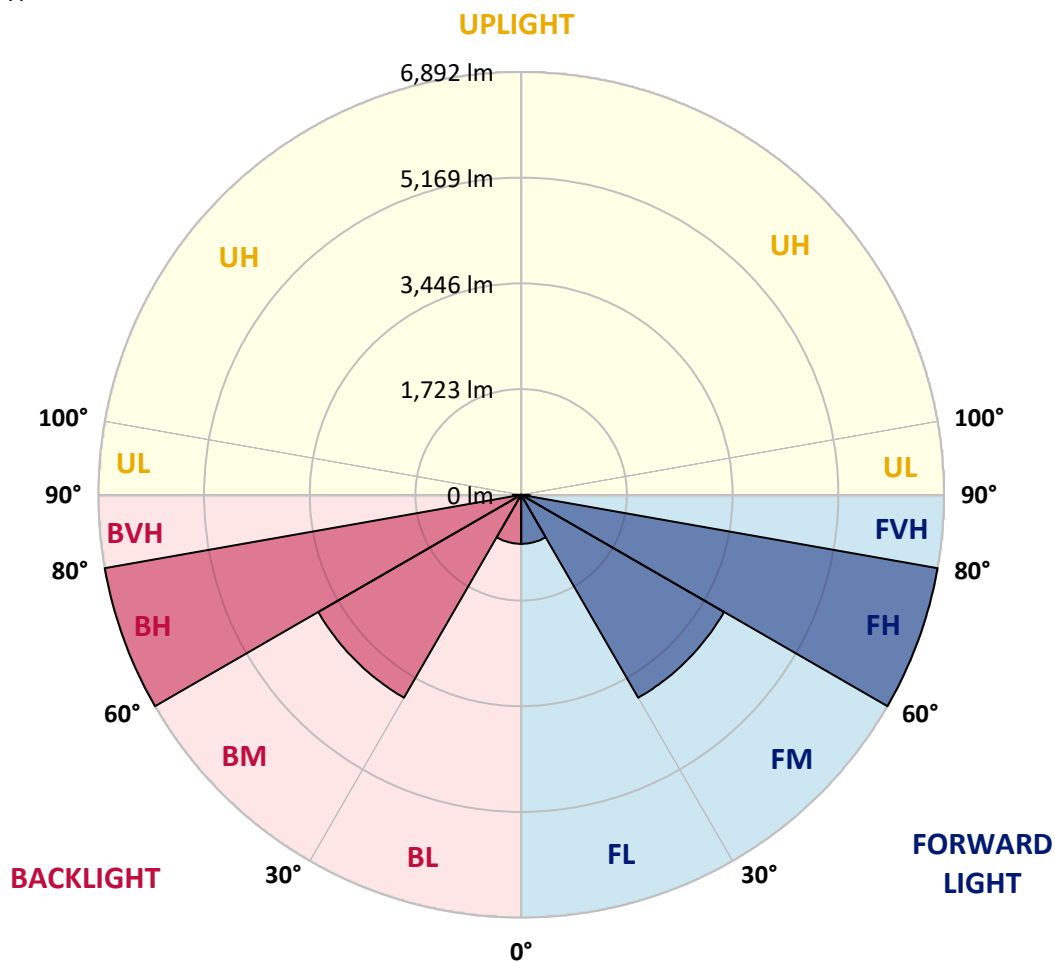


REPORT NUMBER: 48312 _400MP
 CATALOG NUMBER: HMX40PXXDW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	798.7	1.8			
FM (30°-60°)	3818.6	8.7			
FH (60°-80°)	6891.6	15.7			G3/7500
FVH (80°-90°)	136.8	0.3			G2/225
BL (0°-30°)	798.7	1.8	B2/1000		
BM (30°-60°)	3818.6	8.7	B3/5000		
BH (60°-80°)	6891.6	15.7	B5		G3/7500
BVH (80°-90°)	136.8	0.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	20708.7	47.1			

BUG Rating: B5-U0-G3
 Type V Short





REPORT NUMBER: 48312 _400MP
 CATALOG NUMBER: HMX40PXXDW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4178.7	4178.7	4178.7	4178.7	4178.7	4178.7	4178.7	4178.7	4178.7	4178.7	4178.7
5°	3134.4	3134.4	3134.4	3134.4	3134.4	3134.4	3134.4	3134.4	3134.4	3134.4	3134.4
10°	2298.4	2298.4	2298.4	2298.4	2298.4	2298.4	2298.4	2298.4	2298.4	2298.4	2298.4
15°	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1
20°	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5
25°	1775.5	1775.5	1775.5	1775.5	1775.5	1775.5	1775.5	1775.5	1775.5	1775.5	1775.5
30°	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7
35°	2436.8	2436.8	2436.8	2436.8	2436.8	2436.8	2436.8	2436.8	2436.8	2436.8	2436.8
40°	2733.2	2733.2	2733.2	2733.2	2733.2	2733.2	2733.2	2733.2	2733.2	2733.2	2733.2
45°	2994.6	2994.6	2994.6	2994.6	2994.6	2994.6	2994.6	2994.6	2994.6	2994.6	2994.6
50°	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6
55°	3899.2	3899.2	3899.2	3899.2	3899.2	3899.2	3899.2	3899.2	3899.2	3899.2	3899.2
60°	5466.4	5466.4	5466.4	5466.4	5466.4	5466.4	5466.4	5466.4	5466.4	5466.4	5466.4
65°	8704.2	8704.2	8704.2	8704.2	8704.2	8704.2	8704.2	8704.2	8704.2	8704.2	8704.2
70°	11072.5	11072.5	11072.5	11072.5	11072.5	11072.5	11072.5	11072.5	11072.5	11072.5	11072.5
75°	4282.2	4282.2	4282.2	4282.2	4282.2	4282.2	4282.2	4282.2	4282.2	4282.2	4282.2
80°	640.6	640.6	640.6	640.6	640.6	640.6	640.6	640.6	640.6	640.6	640.6
85°	182.5	182.5	182.5	182.5	182.5	182.5	182.5	182.5	182.5	182.5	182.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: 48312 _400MP
 CATALOG NUMBER: HMX40PXXDW

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4178.7	4178.7	4178.7	4178.7	4178.7	4178.7	4178.7	4178.7	4178.7	4178.7
5°	3134.4	3134.4	3134.4	3134.4	3134.4	3134.4	3134.4	3134.4	3134.4	3134.4
10°	2298.4	2298.4	2298.4	2298.4	2298.4	2298.4	2298.4	2298.4	2298.4	2298.4
15°	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1	1637.1
20°	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5
25°	1775.5	1775.5	1775.5	1775.5	1775.5	1775.5	1775.5	1775.5	1775.5	1775.5
30°	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7	2176.7
35°	2436.8	2436.8	2436.8	2436.8	2436.8	2436.8	2436.8	2436.8	2436.8	2436.8
40°	2733.2	2733.2	2733.2	2733.2	2733.2	2733.2	2733.2	2733.2	2733.2	2733.2
45°	2994.6	2994.6	2994.6	2994.6	2994.6	2994.6	2994.6	2994.6	2994.6	2994.6
50°	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6
55°	3899.2	3899.2	3899.2	3899.2	3899.2	3899.2	3899.2	3899.2	3899.2	3899.2
60°	5466.4	5466.4	5466.4	5466.4	5466.4	5466.4	5466.4	5466.4	5466.4	5466.4
65°	8704.2	8704.2	8704.2	8704.2	8704.2	8704.2	8704.2	8704.2	8704.2	8704.2
70°	11072.5	11072.5	11072.5	11072.5	11072.5	11072.5	11072.5	11072.5	11072.5	11072.5
75°	4282.2	4282.2	4282.2	4282.2	4282.2	4282.2	4282.2	4282.2	4282.2	4282.2
80°	640.6	640.6	640.6	640.6	640.6	640.6	640.6	640.6	640.6	640.6
85°	182.5	182.5	182.5	182.5	182.5	182.5	182.5	182.5	182.5	182.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)