

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: 48463 _450MP

Luminaire Tested: **HMX45PXXCM**

Issue Date: 3/3/2020

Test Information

Test Method: LM-31-95
Report Number: 48463 _450MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: HMX45PXXCM
Description: 400W MH TYPE V HIGH MAST
Light Source: 450 WATT PULSE-START CLEAR VBU BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 50000 (1 lamp)
Luminaire Lumens: 29301.1 lumens
Efficiency: 58.6%
Efficacy: 57.7 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): 508
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

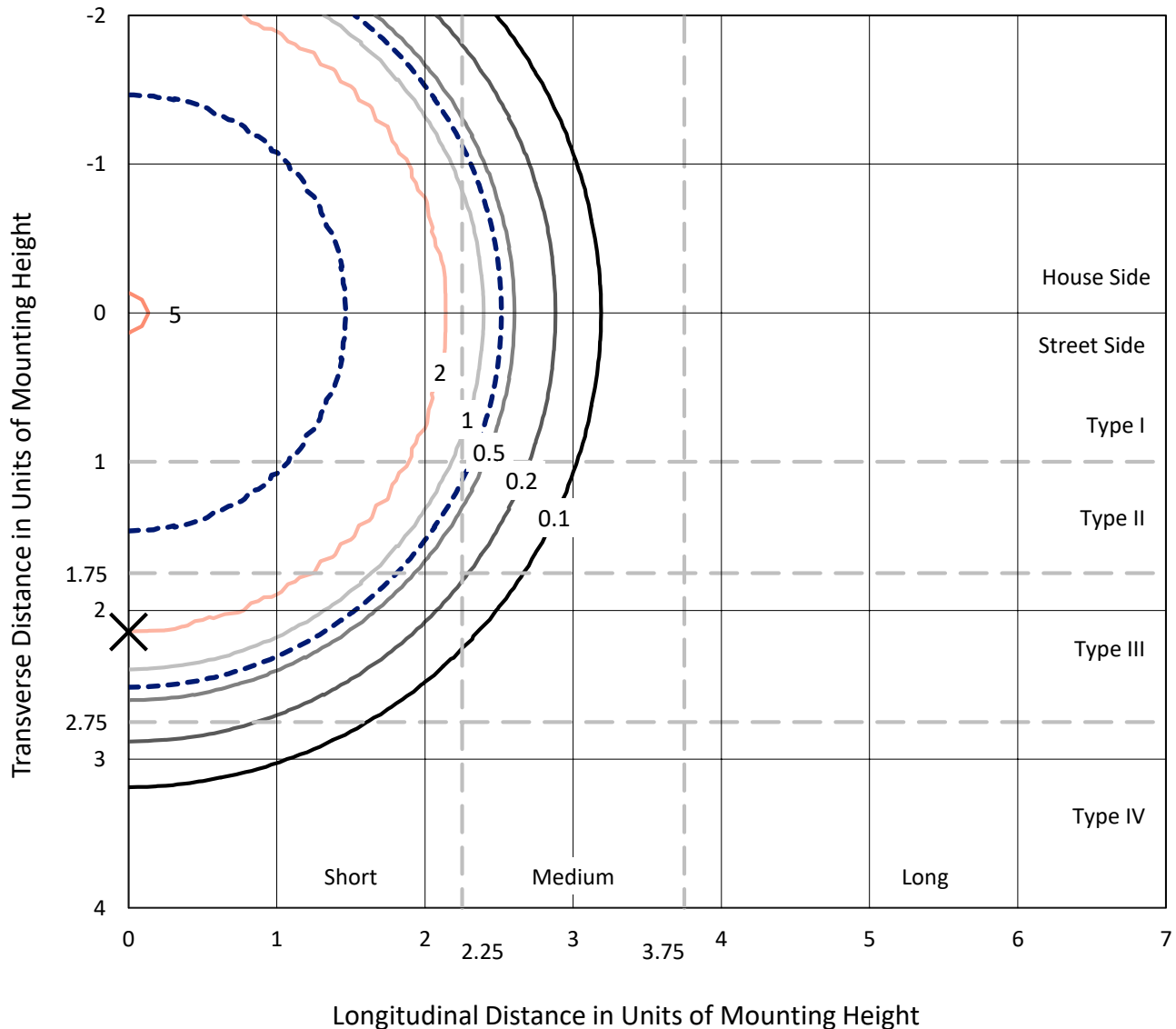




REPORT NUMBER: 48463 _450MP
 CATALOG NUMBER: HMX45PXXCM

Iso-Footcandle Lines of Horizontal Illumination

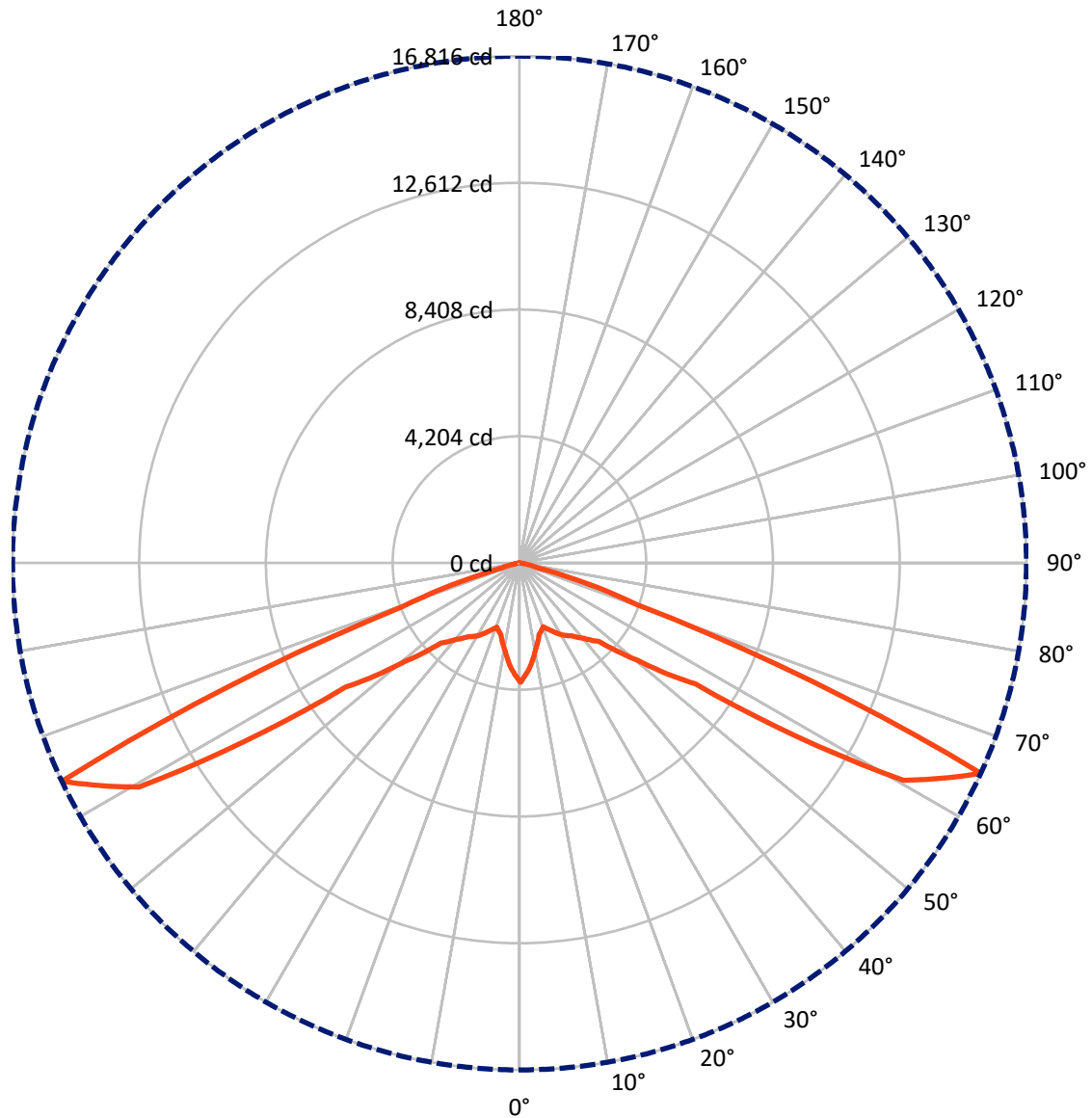
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: 48463 _450MP
CATALOG NUMBER: HMX45PXXCM

Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: 48463 _450MP
 CATALOG NUMBER: HMX45PXXCM

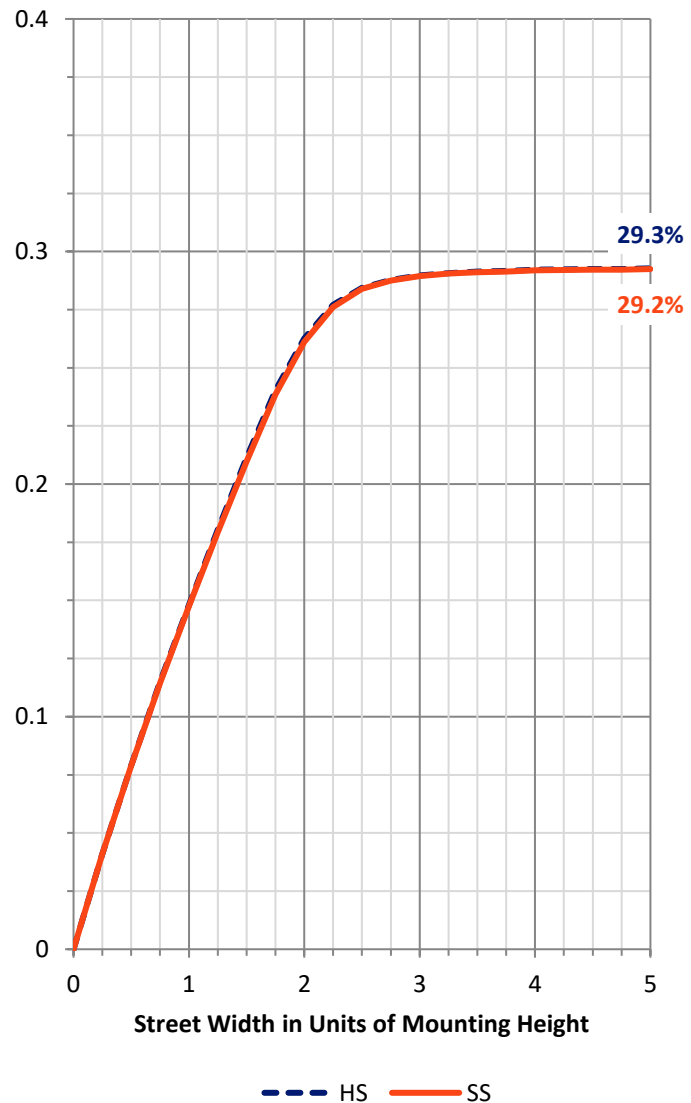
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14650.5	0.0	14650.5
	% Lamp	29.3	0.0	29.3
Street Side	Lumens	14650.5	0.0	14650.5
	% Lamp	29.3	0.0	29.3
Total	Lumens	29301.1	0.0	29301.1
	% Lamp	58.6	0.0	58.6

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	319.2	1.1	0.6
10°-20°	707.5	2.4	1.4
20°-30°	1163.9	4.0	2.3
30°-40°	1887.8	6.4	3.8
40°-50°	3071.5	10.5	6.1
50°-60°	7662.2	26.1	15.3
60°-70°	12956.9	44.2	25.9
70°-80°	1450.5	5.0	2.9
80°-90°	81.6	0.3	0.2
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°	29301.1	100.0	58.6
0°-180°	29301.1	100.0	58.6

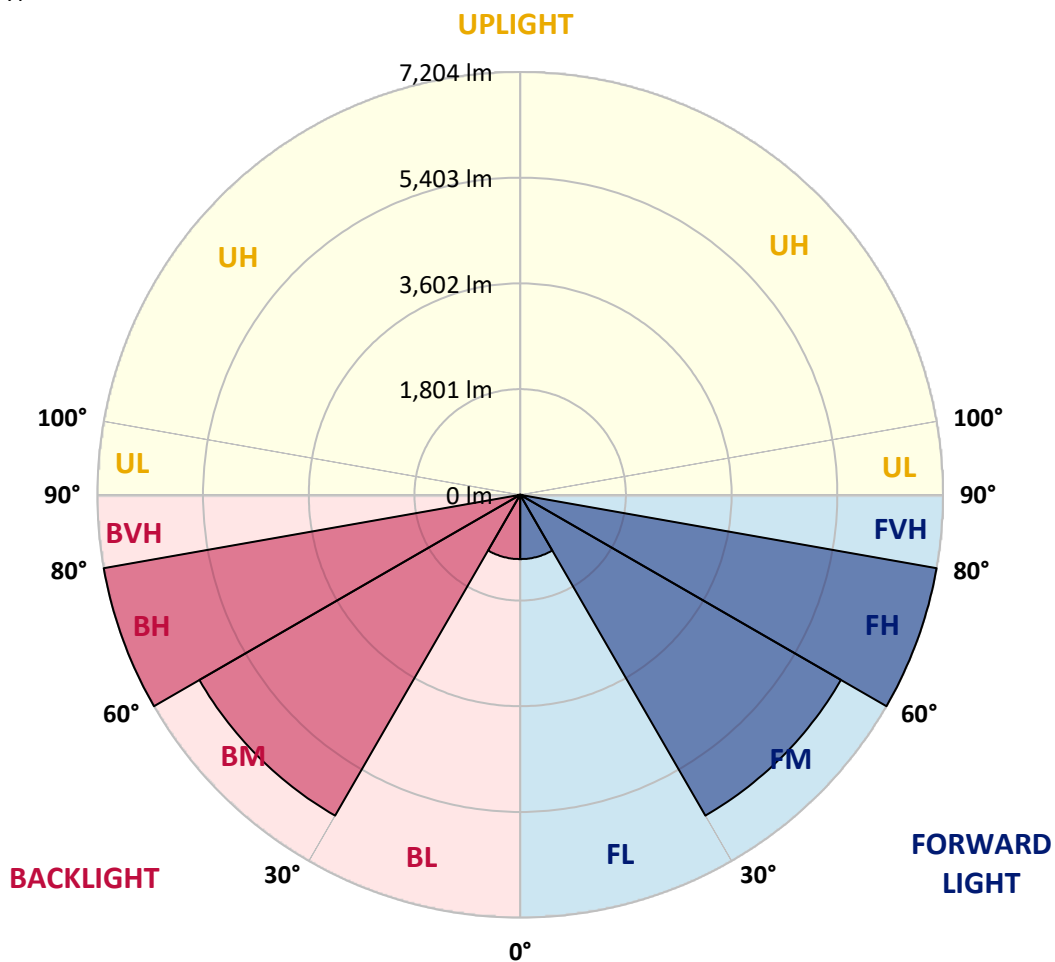


REPORT NUMBER: 48463 _450MP
 CATALOG NUMBER: HMX45PXXCM

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1095.3	2.2			
FM	(30°-60°)	6310.7	12.6			
FH	(60°-80°)	7203.7	14.4			G3/7500
FVH	(80°-90°)	40.8	0.1			G1/100
BL	(0°-30°)	1095.3	2.2	B3/2500		
BM	(30°-60°)	6310.7	12.6	B4/8500		
BH	(60°-80°)	7203.7	14.4	B5		G3/7500
BVH	(80°-90°)	40.8	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		20698.9	41.4			

BUG Rating: B5-U0-G3
 Type V Short





REPORT NUMBER: 48463 _450MP
 CATALOG NUMBER: HMX45PXXCM

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3957.4	3957.4	3957.4	3957.4	3957.4	3957.4	3957.4	3957.4	3957.4	3957.4	3957.4
5°	3501.5	3501.5	3501.5	3501.5	3501.5	3501.5	3501.5	3501.5	3501.5	3501.5	3501.5
10°	2927.9	2927.9	2927.9	2927.9	2927.9	2927.9	2927.9	2927.9	2927.9	2927.9	2927.9
15°	2454.4	2454.4	2454.4	2454.4	2454.4	2454.4	2454.4	2454.4	2454.4	2454.4	2454.4
20°	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9
25°	2492.6	2492.6	2492.6	2492.6	2492.6	2492.6	2492.6	2492.6	2492.6	2492.6	2492.6
30°	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1
35°	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6
40°	3283.8	3283.8	3283.8	3283.8	3283.8	3283.8	3283.8	3283.8	3283.8	3283.8	3283.8
45°	3719.1	3719.1	3719.1	3719.1	3719.1	3719.1	3719.1	3719.1	3719.1	3719.1	3719.1
50°	5064.7	5064.7	5064.7	5064.7	5064.7	5064.7	5064.7	5064.7	5064.7	5064.7	5064.7
55°	7082.4	7082.4	7082.4	7082.4	7082.4	7082.4	7082.4	7082.4	7082.4	7082.4	7082.4
60°	14639.7	14639.7	14639.7	14639.7	14639.7	14639.7	14639.7	14639.7	14639.7	14639.7	14639.7
65°	16816.2	16816.2	16816.2	16816.2	16816.2	16816.2	16816.2	16816.2	16816.2	16816.2	16816.2
70°	4154.4	4154.4	4154.4	4154.4	4154.4	4154.4	4154.4	4154.4	4154.4	4154.4	4154.4
75°	594.1	594.1	594.1	594.1	594.1	594.1	594.1	594.1	594.1	594.1	594.1
80°	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2
85°	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9
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: 48463 _450MP
 CATALOG NUMBER: HMX45PXXCM

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3957.4	3957.4	3957.4	3957.4	3957.4	3957.4	3957.4	3957.4	3957.4	3957.4
5°	3501.5	3501.5	3501.5	3501.5	3501.5	3501.5	3501.5	3501.5	3501.5	3501.5
10°	2927.9	2927.9	2927.9	2927.9	2927.9	2927.9	2927.9	2927.9	2927.9	2927.9
15°	2454.4	2454.4	2454.4	2454.4	2454.4	2454.4	2454.4	2454.4	2454.4	2454.4
20°	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9	2255.9
25°	2492.6	2492.6	2492.6	2492.6	2492.6	2492.6	2492.6	2492.6	2492.6	2492.6
30°	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1
35°	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6	2967.6
40°	3283.8	3283.8	3283.8	3283.8	3283.8	3283.8	3283.8	3283.8	3283.8	3283.8
45°	3719.1	3719.1	3719.1	3719.1	3719.1	3719.1	3719.1	3719.1	3719.1	3719.1
50°	5064.7	5064.7	5064.7	5064.7	5064.7	5064.7	5064.7	5064.7	5064.7	5064.7
55°	7082.4	7082.4	7082.4	7082.4	7082.4	7082.4	7082.4	7082.4	7082.4	7082.4
60°	14639.7	14639.7	14639.7	14639.7	14639.7	14639.7	14639.7	14639.7	14639.7	14639.7
65°	16816.2	16816.2	16816.2	16816.2	16816.2	16816.2	16816.2	16816.2	16816.2	16816.2
70°	4154.4	4154.4	4154.4	4154.4	4154.4	4154.4	4154.4	4154.4	4154.4	4154.4
75°	594.1	594.1	594.1	594.1	594.1	594.1	594.1	594.1	594.1	594.1
80°	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2	188.2
85°	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)