

Report of Test LL24633

Western Power. Product ID: 80 W Mercury Vapour Round Body with 80 W MV Lamp (B2224).

White metal tray and black plastic body, overall extents ~ 427 x 271 x 110 mm deep.

Prismatic drop lens forms luminous volume of 240 mm diameter x 130 mm deep. White conical reflector about lamp. One Sylvania HSL-BW-80W lamp centred in L/V.

One Atco OMB80-03 250V 50Hz magnetic ballast.

Tested at 240 V 50 Hz. Spigot mount in C270 position.

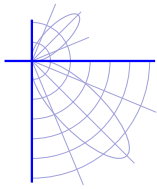


Performance Summary

Luminous Flux	2450 lm
Total Luminaire Power	86.7 W
Luminous Efficacy	28.3 lm / W

Prepared for: Western Power, 363 Wellington Street, Perth, WA 6000.

This report shall not be reproduced, except in full, without prior written approval of the issuing laboratory.



Test Report No. LL24633

Western Power. Product ID: 80 W Mercury Vapour Round Body with 80 W MV Lamp (B2224).

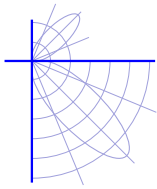
White metal tray and black plastic body, overall extents ~ 427 x 271 x 110 mm deep.

Prismatic drop lens forms luminous volume of 240 mm diameter x 130 mm deep. White conical reflector about lamp. One Sylvania HSL-BW-80W lamp centred in L/V.

One Atco OMB80-03 250V 50Hz magnetic ballast.

Tested at 240 V 50 Hz. Spigot mount in C270 position.





Test Report No. LL24633

Western Power. Product ID: 80 W Mercury Vapour Round Body with 80 W MV Lamp (B2224).

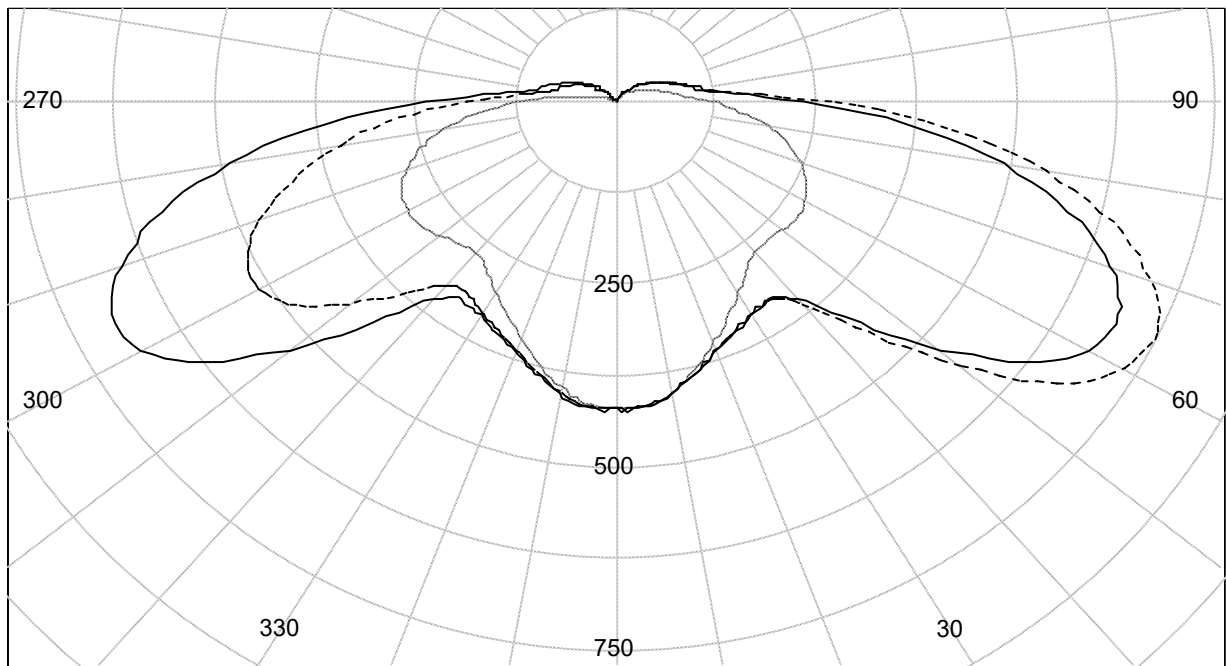
White metal tray and black plastic body, overall extents ~ 427 x 271 x 110 mm deep.

Prismatic drop lens forms luminous volume of 240 mm diameter x 130 mm deep. White conical reflector about lamp. One Sylvania HSL-BW-80W lamp centred in L/V.

One Atco OMB80-03 250V 50Hz magnetic ballast.

Tested at 240 V 50 Hz. Spigot mount in C270 position.

Polar Light Distribution Curves



Kerbside / Downstream

C0-Solid, Plane of maximum-Dashed, C90-Grey (cd)
C0 aligned towards oncoming traffic

Streetside / Upstream

Street Lantern Summary:

Report data as tested.

	Luminous Flux (lm)		
	Upward	Downward	Total
Street Side	148.1	1163	1311 lm
House Side	103.2	1036	1139 lm
Total Luminous Flux			2450 lm

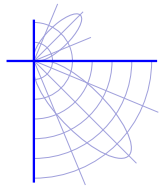
Certified by:

Toby Southgate
Authorised Signatory

Date of test
Date of report

3-May-2023
05-Jun-2023





Test Report No. LL24633

Western Power. Product ID: 80 W Mercury Vapour Round Body with 80 W MV Lamp (B2224).

White metal tray and black plastic body, overall extents ~ 427 x 271 x 110 mm deep.

Prismatic drop lens forms luminous volume of 240 mm diameter x 130 mm deep. White conical reflector about lamp. One Sylvania HSL-BW-80W lamp centred in L/V.

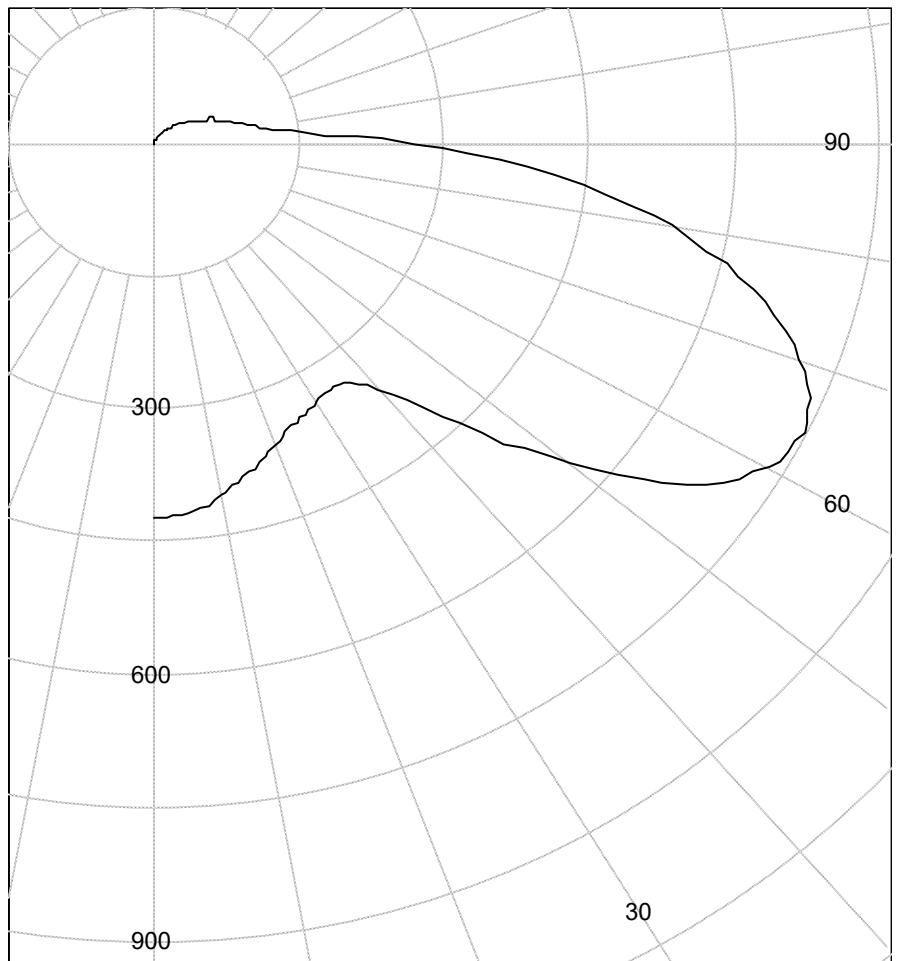
One Atco OMB80-03 250V 50Hz magnetic ballast.

Tested at 240 V 50 Hz. Spigot mount in C270 position.

Luminous intensity
in principal plane

Principal Vertical Plane

Gamma (°)	Intensity (cd)
0.0	422.8
10.0	404.9
20.0	363.1
30.0	337.0
35.0	334.0
40.0	362.2
45.0	449.2
47.5	506.6
50.0	562.3
52.5	621.8
55.0	672.6
57.5	706.9
60.0	733.2
62.5	745.4
65.0	746.1
67.5	730.6
70.0	709.7
72.5	678.0
75.0	641.2
77.5	597.2
80.0	544.6
82.5	482.1
85.0	416.1
87.5	343.0
90.0	269.1
92.5	188.4
95.0	143.8
97.5	120.1
100.0	106.6
102.5	96.8
105.0	89.8
120.0	53.0
135.0	22.6
150.0	3.5
165.0	0.0
180.0	0.0



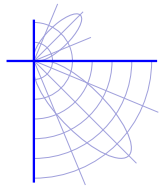
Legend: Plane of maximum luminous intensity (cd)

	Maximum luminous intensity
House Side	694.2 cd @ (0.0, 64.0)
Street Side	747.3 cd @ (12.5, 63.5)

Note: The coordinate pairs in the above table are expressed in degrees and have the format (C plane, Gamma angle).

Data for the two symmetric halves of the luminaire has been averaged.





Test Report No. LL24633

Western Power. Product ID: 80 W Mercury Vapour Round Body with 80 W MV Lamp (B2224).

White metal tray and black plastic body, overall extents ~ 427 x 271 x 110 mm deep.

Prismatic drop lens forms luminous volume of 240 mm diameter x 130 mm deep. White conical reflector about lamp. One Sylvania HSL-BW-80W lamp centred in L/V.

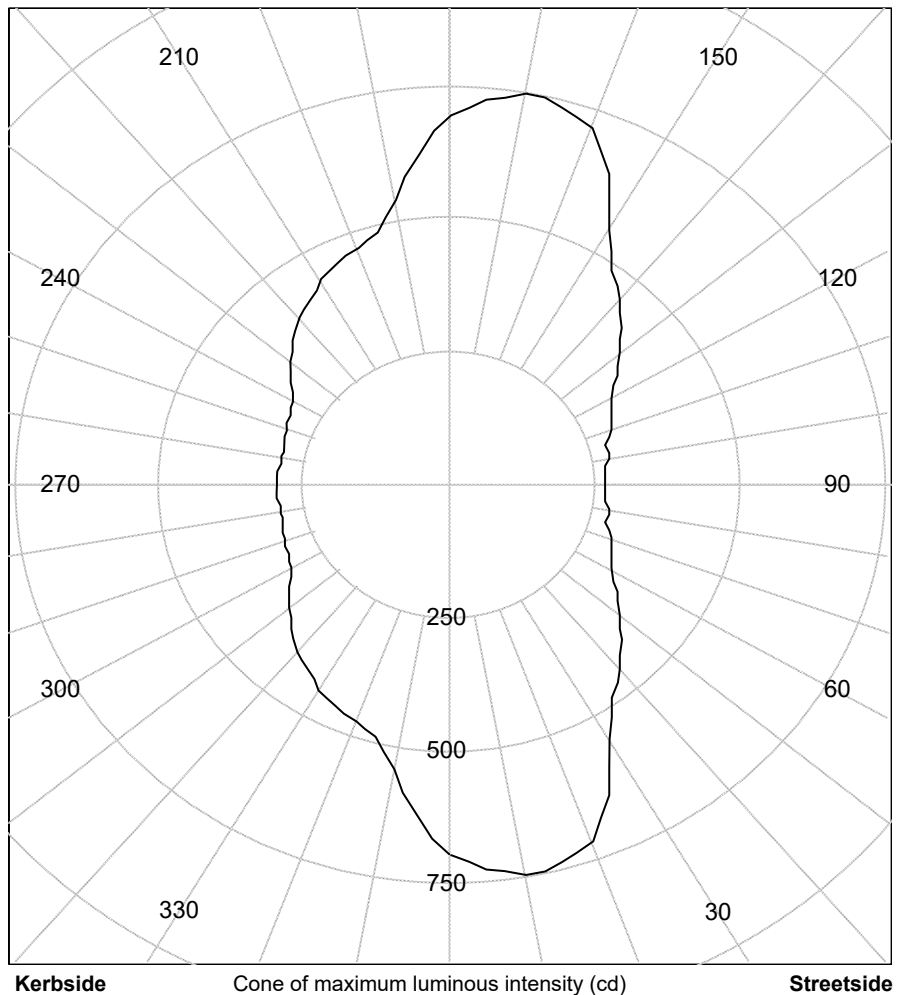
One Atco OMB80-03 250V 50Hz magnetic ballast.

Tested at 240 V 50 Hz. Spigot mount in C270 position.

Luminous intensity in principal cone

Principal Conical Surface

C-Plane (°)	Intensity (cd)
90.0	266.9
75.0	280.4
60.0	322.7
50.0	380.3
45.0	419.6
40.0	452.5
35.0	488.9
30.0	552.0
25.0	644.5
20.0	711.9
15.0	732.5
10.0	746.6
5.0	728.5
0.0	694.0
355.0	626.6
350.0	543.7
345.0	488.4
340.0	471.8
335.0	457.6
330.0	444.0
325.0	425.2
320.0	407.3
315.0	381.4
310.0	357.8
300.0	311.6
285.0	295.0
270.0	295.6



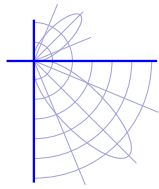
Maximum luminous intensity

House Side 694.2 cd @ (0.0, 64.0)

Street Side 747.3 cd @ (12.5, 63.5)

Note: The coordinate pairs in the above table are expressed in degrees and have the format (C plane, Gamma angle). Data for the two symmetric halves of the luminaire has been averaged.





Test Report No. LL24633

Western Power. Product ID: 80 W Mercury Vapour Round Body with 80 W MV Lamp (B2224).

White metal tray and black plastic body, overall extents ~ 427 x 271 x 110 mm deep.

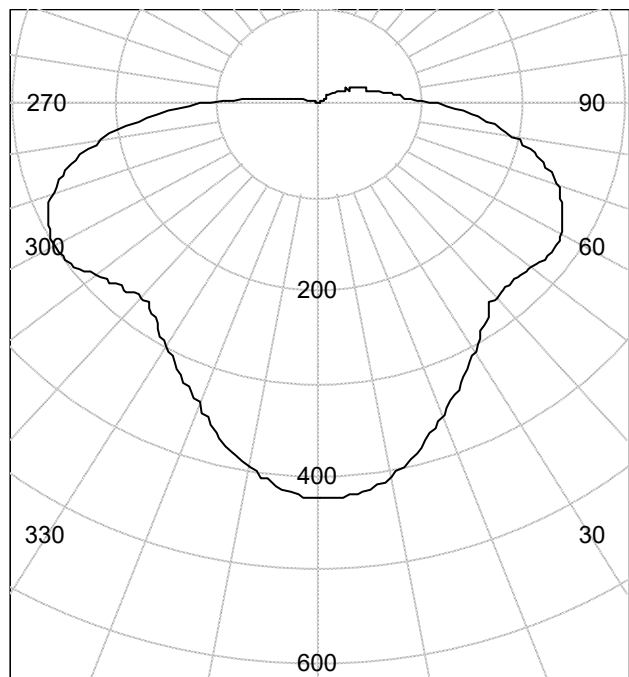
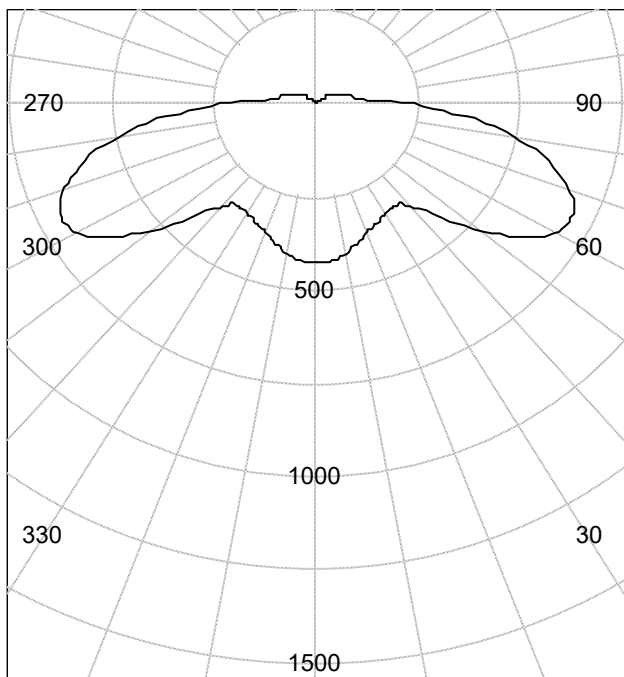
Prismatic drop lens forms luminous volume of 240 mm diameter x 130 mm deep. White conical reflector about lamp. One Sylvania HSL-BW-80W lamp centred in L/V.

One Atco OMB80-03 250V 50Hz magnetic ballast.

Tested at 240 V 50 Hz. Spigot mount in C270 position.

Polar curve through CIE C0 / C180

Polar curve through CIE C90 / C270



Downstream
(C180)

(cd)

Upstream
(C0)

Kerbside
(C270)

(cd)

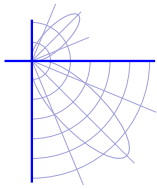
Streetside
(C90)

Performance Parameters

I_{80}	=	489.8	cd
I_{88}	=	286.1	cd
I_{90}	=	236.1	cd
I_{80} / I_{88}	=	1.712	

Note: The intensity values listed (I_{xx}) are all within the C0 half plane, the subscript refers to the gamma angle.





Test Report No. LL24633

Western Power. Product ID: 80 W Mercury Vapour Round Body with 80 W MV Lamp (B2224).

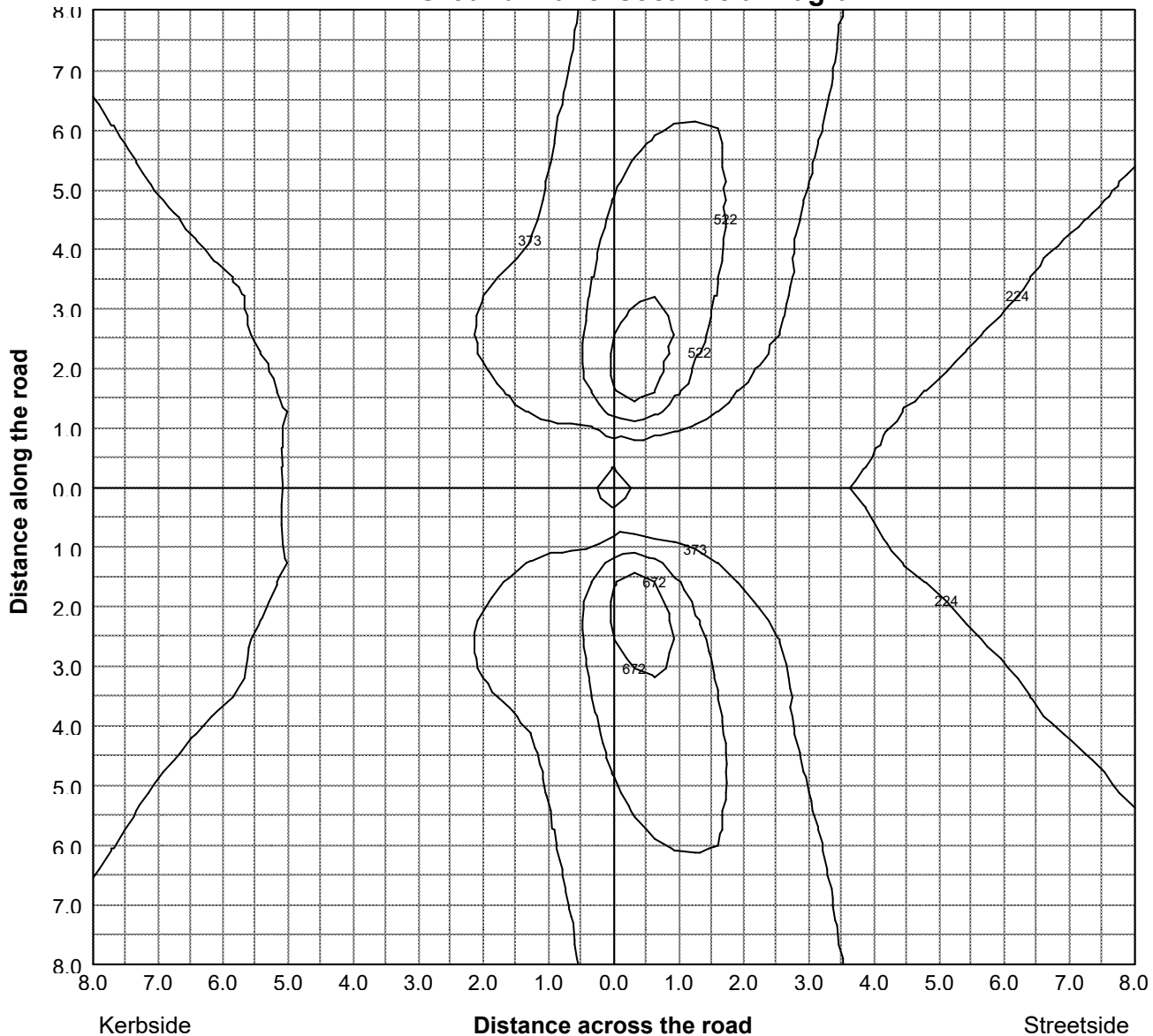
White metal tray and black plastic body, overall extents ~ 427 x 271 x 110 mm deep.

Prismatic drop lens forms luminous volume of 240 mm diameter x 130 mm deep. White conical reflector about lamp. One Sylvania HSL-BW-80W lamp centred in L/V.

One Atco OMB80-03 250V 50Hz magnetic ballast.

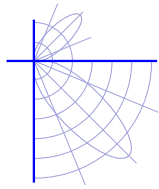
Tested at 240 V 50 Hz. Spigot mount in C270 position.

Ground Plane Isocandela Diagram



Note: The isocandela levels are based on a mounting height of $H = 10.0$ metres. Grid values show multiples of mounting height.
 The isocandela contours are set to 10%, 20%, 30%, 50%, 70%, 90% of the maximum.
 The isocandela contour units are expressed as candela. Upstream and downstream sides have been averaged.





Test Report No. LL24633

Western Power. Product ID: 80 W Mercury Vapour Round Body with 80 W MV Lamp (B2224).

White metal tray and black plastic body, overall extents ~ 427 x 271 x 110 mm deep.

Prismatic drop lens forms luminous volume of 240 mm diameter x 130 mm deep. White conical reflector about lamp. One Sylvania HSL-BW-80W lamp centred in L/V.

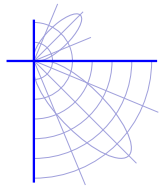
One Atco OMB80-03 250V 50Hz magnetic ballast.

Tested at 240 V 50 Hz. Spigot mount in C270 position.

Kerb side luminous intensity data (cd)

Gamma (°)	C-Plane								
	C270	C285	C300	C310	C315	C320	C325	C330	C335
0.0	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8
10.0	394.5	399.2	400.0	399.9	398.7	402.3	401.5	402.8	401.7
20.0	342.1	345.8	349.0	351.4	351.9	355.5	356.4	357.7	357.9
30.0	299.5	302.7	305.3	310.5	310.7	315.3	316.8	320.7	321.9
35.0	280.9	283.2	285.5	291.5	291.7	294.9	298.9	303.7	307.0
40.0	270.3	272.1	275.4	282.0	283.6	290.1	294.3	300.3	307.5
45.0	275.1	274.4	279.2	289.3	295.1	304.5	313.7	326.2	333.7
47.5	279.8	280.3	284.7	298.4	306.7	318.7	331.1	346.1	355.4
50.0	285.8	286.3	291.4	310.3	321.7	336.1	351.0	366.4	379.9
52.5	292.8	293.3	299.9	323.1	337.8	355.5	372.4	391.7	404.1
55.0	297.6	297.3	306.6	334.4	354.1	374.0	391.2	409.7	423.7
57.5	300.0	300.5	311.1	346.4	366.3	389.4	408.5	428.1	441.1
60.0	299.5	298.6	314.2	354.5	375.4	400.5	419.7	438.1	453.6
62.5	297.2	296.4	312.9	357.6	379.3	405.7	424.8	442.4	458.6
65.0	292.3	292.6	309.9	358.2	380.3	406.8	424.4	441.7	453.2
67.5	286.5	286.1	304.9	354.8	378.0	402.9	418.9	433.5	441.7
70.0	277.6	275.9	298.4	348.5	371.0	392.9	408.9	417.7	426.9
72.5	265.5	265.0	286.1	337.0	358.2	379.4	390.7	400.9	404.6
75.0	252.1	251.5	273.2	320.6	341.0	361.1	368.8	376.7	383.0
77.5	235.0	235.5	257.1	302.6	321.5	337.6	344.6	349.6	354.5
80.0	215.6	216.1	234.4	281.2	296.9	311.6	315.5	319.5	322.8
82.5	193.6	194.2	212.7	252.7	269.0	280.8	284.1	287.9	287.3
85.0	169.8	170.7	186.7	221.3	234.3	244.2	247.6	250.4	249.2
87.5	143.1	144.3	155.9	186.5	195.3	203.4	206.4	210.0	208.8
90.0	117.7	118.1	128.8	148.9	158.4	161.7	166.2	166.9	168.0
92.5	92.0	91.2	95.2	109.2	115.2	116.8	120.8	122.0	123.7
95.0	70.1	70.9	75.3	83.4	84.3	87.1	89.1	91.5	93.7
97.5	54.1	56.2	61.5	67.0	68.7	70.9	72.4	74.2	76.9
100.0	42.3	45.2	50.5	56.6	57.6	59.7	61.3	64.0	67.4
102.5	33.1	36.6	42.0	47.6	49.2	51.7	53.5	56.2	61.0
105.0	25.9	29.8	35.6	41.0	42.8	45.3	48.0	51.4	56.3
120.0	2.8	5.1	10.4	16.2	18.7	21.3	23.9	27.3	32.6
135.0	0.0	0.0	0.8	3.2	4.7	5.8	9.0	11.8	14.3
150.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	1.3	2.2
165.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





Test Report No. LL24633

Western Power. Product ID: 80 W Mercury Vapour Round Body with 80 W MV Lamp (B2224).

White metal tray and black plastic body, overall extents ~ 427 x 271 x 110 mm deep.

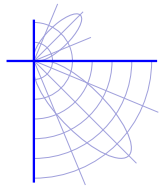
Prismatic drop lens forms luminous volume of 240 mm diameter x 130 mm deep. White conical reflector about lamp. One Sylvania HSL-BW-80W lamp centred in L/V.

One Atco OMB80-03 250V 50Hz magnetic ballast.

Tested at 240 V 50 Hz. Spigot mount in C270 position.

Gamma (°)	Kerb side		Luminous intensity data (cd)						Road side	
	C340	C345	C350	C355	C-Plane		C10	C15	C20	
					C0	C5				
0.0	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	
10.0	406.3	405.6	404.9	402.8	406.4	405.4	405.0	405.7	406.0	
20.0	362.7	362.2	364.3	363.6	365.0	366.0	364.1	365.1	363.8	
30.0	328.6	328.8	336.0	334.4	337.9	336.7	336.9	334.5	334.7	
35.0	313.8	316.7	326.5	327.4	332.3	333.7	334.1	331.7	328.4	
40.0	316.8	324.2	337.0	344.5	354.7	361.3	363.6	360.4	355.7	
45.0	348.2	360.9	383.2	401.8	429.7	446.3	452.4	446.4	434.7	
47.5	373.8	389.2	415.2	444.1	480.5	499.8	512.0	502.1	484.3	
50.0	399.5	417.3	448.3	485.8	529.9	554.1	569.3	559.1	535.6	
52.5	424.7	441.7	482.3	529.0	578.2	610.4	626.8	614.6	587.7	
55.0	446.9	466.2	512.1	564.6	622.1	654.7	672.6	663.0	637.6	
57.5	463.0	480.8	532.6	595.4	659.9	695.3	709.8	697.7	677.3	
60.0	471.5	487.5	544.1	619.5	682.1	719.8	734.6	721.2	695.5	
62.5	472.9	488.3	546.5	626.4	692.9	727.0	744.9	732.1	712.2	
65.0	467.4	484.2	541.1	623.4	692.9	728.9	745.1	734.6	707.2	
67.5	455.2	475.4	525.4	608.1	682.3	717.5	733.1	720.9	695.7	
70.0	437.8	457.7	500.4	582.1	655.7	694.3	708.8	700.4	672.1	
72.5	415.4	432.5	474.2	550.4	623.8	664.1	676.0	673.4	642.2	
75.0	387.7	406.6	440.7	510.2	585.5	624.9	639.4	634.0	597.8	
77.5	363.0	375.4	407.7	467.0	541.9	581.4	595.4	592.2	555.6	
80.0	327.2	340.5	367.7	416.6	489.8	528.9	540.9	540.7	502.7	
82.5	293.6	302.2	327.2	367.0	431.3	470.2	481.1	478.8	440.7	
85.0	255.2	262.1	281.1	314.9	365.8	405.0	416.1	412.2	376.9	
87.5	213.0	219.3	235.3	258.7	298.3	329.4	343.0	335.1	306.2	
90.0	171.9	177.6	189.5	209.5	236.1	259.2	270.8	263.2	242.2	
92.5	130.3	133.4	145.3	158.1	172.1	184.9	191.9	187.7	174.1	
95.0	99.6	106.2	114.8	124.9	134.9	141.4	144.1	143.7	136.1	
97.5	83.2	90.1	97.8	104.1	112.6	117.0	119.5	119.6	114.1	
100.0	74.1	80.9	87.6	92.9	100.2	104.0	106.2	106.5	102.0	
102.5	67.6	74.7	80.0	85.5	91.8	95.6	96.3	96.2	93.3	
105.0	63.8	69.2	74.6	79.7	85.4	88.6	89.5	89.2	85.3	
120.0	38.0	41.3	44.7	48.0	51.1	53.0	53.2	52.4	49.7	
135.0	16.6	18.2	20.1	21.3	22.2	22.8	22.9	22.2	20.8	
150.0	2.7	3.1	3.4	3.6	3.7	3.8	3.6	3.4	3.2	
165.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	





Test Report No. LL24633

Western Power. Product ID: 80 W Mercury Vapour Round Body with 80 W MV Lamp (B2224).

White metal tray and black plastic body, overall extents ~ 427 x 271 x 110 mm deep.

Prismatic drop lens forms luminous volume of 240 mm diameter x 130 mm deep. White conical reflector about lamp. One Sylvania HSL-BW-80W lamp centred in L/V.

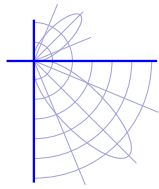
One Atco OMB80-03 250V 50Hz magnetic ballast.

Tested at 240 V 50 Hz. Spigot mount in C270 position.

Road side luminous intensity data (cd)

Gamma (°)	C-Plane								
	C25	C30	C35	C40	C45	C50	C60	C75	C90
0.0	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8
10.0	405.2	405.1	405.3	406.5	406.7	406.3	406.3	407.8	406.3
20.0	363.4	362.3	359.3	361.5	359.9	359.4	357.7	356.3	354.3
30.0	333.8	327.5	324.1	322.5	320.0	317.6	311.1	307.7	305.0
35.0	325.8	318.0	310.9	306.4	302.5	299.0	291.6	285.7	283.7
40.0	342.4	329.1	317.4	308.2	302.5	292.4	283.7	274.4	270.6
45.0	406.9	375.3	352.2	333.8	319.2	304.2	287.0	274.0	268.3
47.5	450.4	405.5	377.1	353.8	335.4	315.4	295.3	276.4	270.2
50.0	491.9	441.9	404.3	375.9	351.2	328.5	301.8	280.4	272.4
52.5	538.8	475.6	430.0	400.6	370.0	343.3	310.1	284.7	275.7
55.0	578.3	507.5	453.9	420.0	390.1	358.1	316.6	286.6	277.0
57.5	613.5	532.5	473.9	436.5	403.7	369.4	321.5	288.2	276.3
60.0	634.5	547.4	484.2	447.5	414.9	376.9	324.4	286.7	273.8
62.5	644.3	551.8	487.1	452.4	419.1	380.0	323.5	282.8	268.8
65.0	641.5	551.5	487.0	451.4	419.3	379.5	320.5	276.6	262.7
67.5	627.8	538.2	476.9	444.2	415.1	374.9	315.0	270.0	255.4
70.0	600.2	517.4	460.4	431.2	403.7	365.8	306.1	260.4	246.5
72.5	566.6	488.5	440.0	412.1	388.4	352.5	295.4	249.8	234.4
75.0	525.1	454.4	412.6	388.7	368.5	335.1	280.8	237.1	221.4
77.5	483.1	420.9	383.9	364.4	343.6	316.7	265.0	222.6	207.5
80.0	433.3	380.7	347.9	333.0	317.3	294.5	245.5	206.9	192.0
82.5	384.3	341.1	311.1	299.3	289.9	268.0	223.4	187.9	175.1
85.0	328.8	293.3	269.1	262.5	254.6	235.9	199.8	168.5	157.0
87.5	273.2	246.1	225.1	219.7	215.7	200.0	171.7	146.1	137.2
90.0	215.5	196.6	182.2	178.4	176.1	165.7	144.9	125.3	116.9
92.5	158.4	147.8	135.9	138.5	136.4	130.9	115.4	102.0	97.5
95.0	125.2	117.1	110.2	109.2	107.5	104.4	96.0	88.1	83.8
97.5	106.0	100.3	95.2	93.5	92.5	90.3	84.3	78.4	74.8
100.0	95.0	89.4	84.5	82.8	82.2	80.5	75.6	70.8	68.0
102.5	86.4	80.9	76.0	74.6	73.3	72.0	68.0	64.6	61.4
105.0	79.6	73.8	69.9	67.9	67.0	65.4	62.2	59.0	57.1
120.0	46.0	42.2	39.0	37.5	36.0	34.7	32.6	32.2	32.4
135.0	19.0	16.4	13.1	11.0	11.2	11.2	10.1	12.1	14.0
150.0	2.8	1.9	1.0	0.3	0.1	0.1	0.8	2.0	2.5
165.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





Test Report No. LL24633

Western Power. Product ID: 80 W Mercury Vapour Round Body with 80 W MV Lamp (B2224).

White metal tray and black plastic body, overall extents ~ 427 x 271 x 110 mm deep.

Prismatic drop lens forms luminous volume of 240 mm diameter x 130 mm deep. White conical reflector about lamp. One Sylvania HSL-BW-80W lamp centred in L/V.

One Atco OMB80-03 250V 50Hz magnetic ballast.

Tested at 240 V 50 Hz. Spigot mount in C270 position.

Environment	Photometric distance	8.0 m
	Ambient temperature	24.8 °C

Notes Sampling was not performed. This report is applicable only to the sample that was tested.

The significance of the report is limited to the extent that the sample is representative of the population.

Testing was performed in a laboratory with suitable control of environmental conditions, stray light, electrical supply and stabilisation. The sample was maintained in a fixed orientation for the duration of testing.

The photometric values contained in this report are absolute, they have not been scaled by the luminous flux emitted by the light source .

Prorating values for the use of other light source/driver combinations, or for use in different environmental conditions, may yield erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the CIE Cgamma coordinate system as described in CIE Publication number 121.

The term "Total luminaire power" may appear in this report, it represents the total electrical power consumption of the device tested.

Procedure LightLab Procedure Test-B3130. Tested in accordance with the applicable sections of CIE Publication Numbers 121 and 34; with reference to Australian Standard AS1680, Part 3.

Measurement uncertainties Measurement uncertainties are available on request.

