

Report of Test LL24636

Western Power. Product ID: 80 W Mercury Vapour Round Body with 18 W LED 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 Philips 18W 9290023499 LED lamp centred in L/V.

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

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



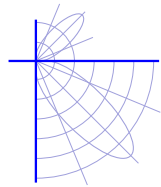
Performance Summary

Luminous Flux	2044 lm
Total Luminaire Power	18.4 W
Luminous Efficacy	111 lm / W

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

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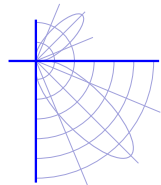
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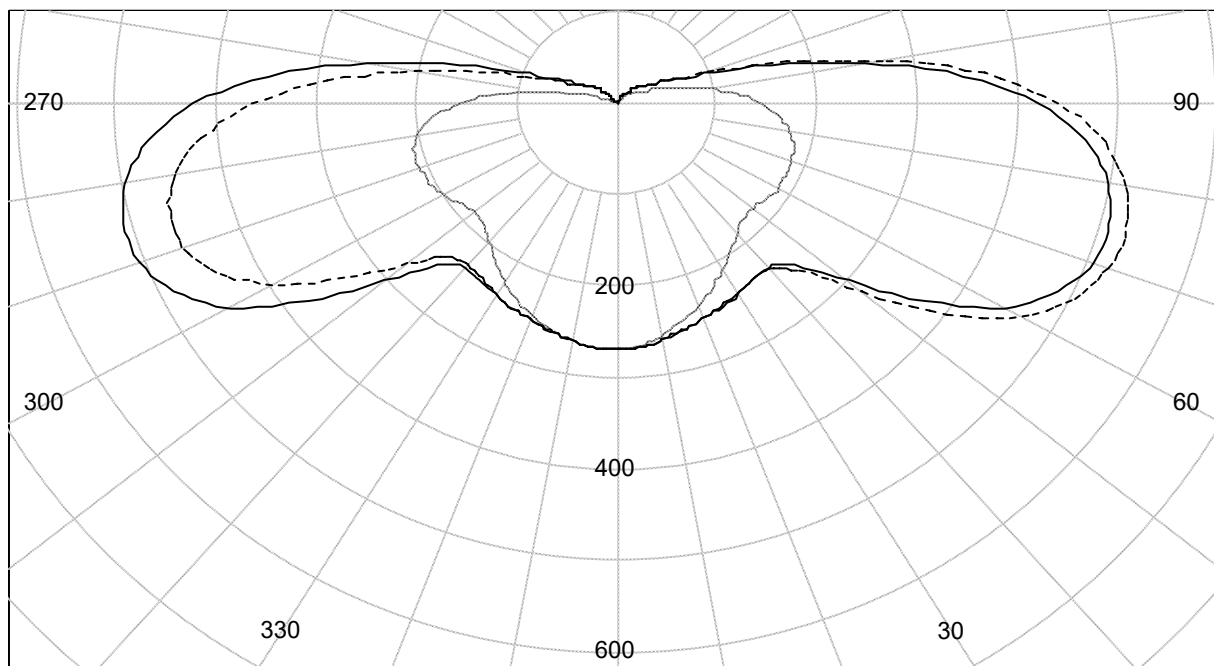
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Polar Light Distribution Curves



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.

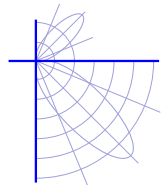
	Luminous Flux (lm)		
	Upward	Downward	Total
Street Side	218.3	862.1	1080 lm
House Side	160.6	802.9	963.5 lm
Total Luminous Flux			2044 lm

Certified by:

Toby Southgate
Authorised Signatory

Date of test
Date of report

3-May-2023
05-Jun-2023



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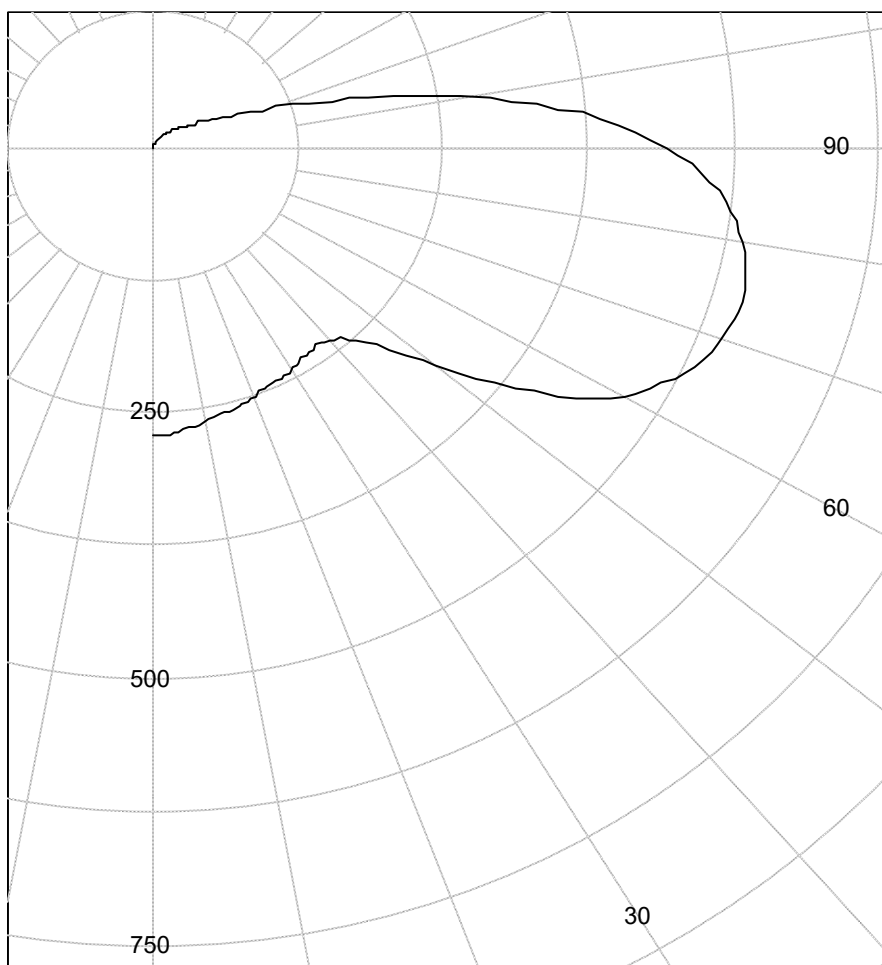
One Atco OMB80-03 250V 50Hz magnetic ballast.

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

Luminous intensity
in principal plane

Gamma (°)	Intensity (cd)
0.0	270.6
10.0	263.0
20.0	251.2
30.0	241.1
35.0	235.7
40.0	236.6
45.0	259.5
47.5	285.8
50.0	320.0
52.5	363.1
55.0	401.5
57.5	441.0
60.0	468.1
62.5	488.5
65.0	504.9
67.5	515.7
70.0	523.0
72.5	526.5
75.0	526.6
77.5	522.6
80.0	515.5
82.5	504.1
85.0	488.6
87.5	467.8
90.0	441.8
92.5	409.1
95.0	370.3
97.5	323.7
100.0	269.9
102.5	219.5
105.0	175.4
120.0	45.7
135.0	19.3
150.0	3.5
165.0	0.0
180.0	0.0

Principal Vertical Plane

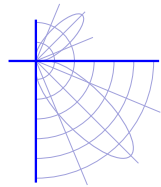


Legend: Plane of maximum luminous intensity (cd)

	Maximum luminous intensity
House Side	510.2 cd @ (0.0, 73.5)
Street Side	527.0 cd @ (7.5, 73.5)

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.



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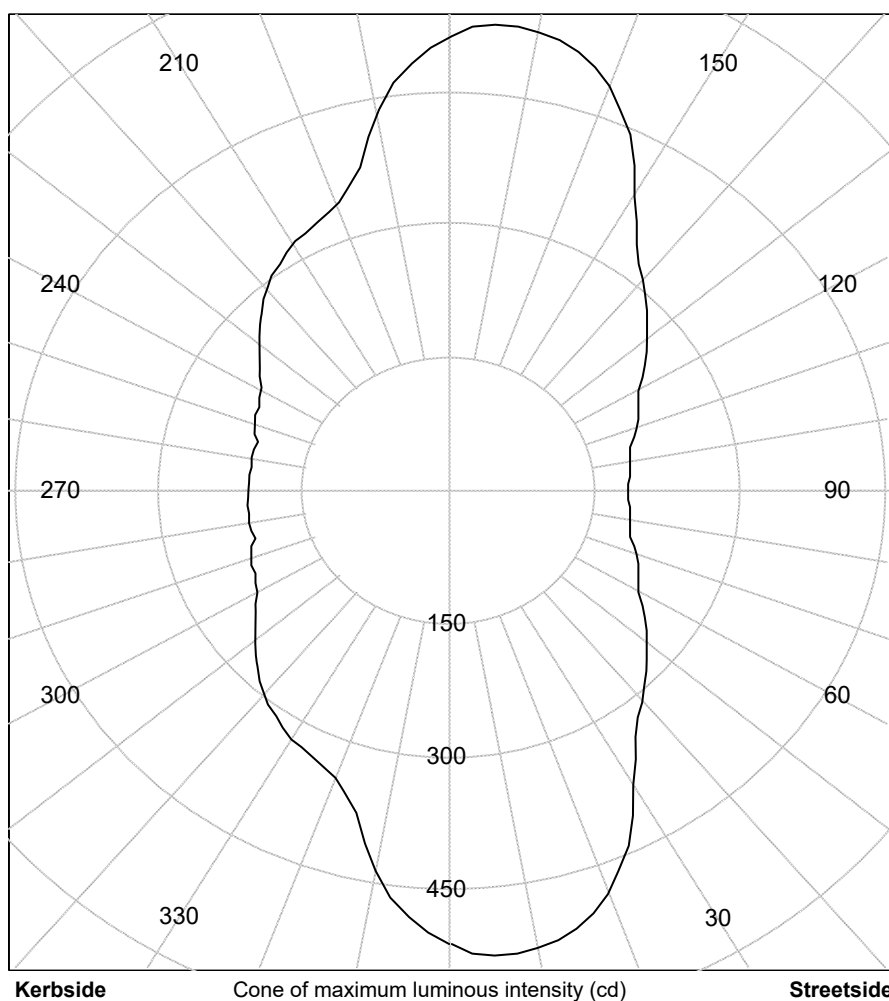
One Atco OMB80-03 250V 50Hz magnetic ballast.

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

Luminous intensity
in principal cone

C-Plane (°)	Intensity (cd)
90.0	183.6
75.0	195.5
60.0	226.7
50.0	266.7
45.0	288.6
40.0	309.0
35.0	335.7
30.0	380.9
25.0	441.3
20.0	484.3
15.0	509.4
10.0	524.3
5.0	525.7
0.0	510.2
355.0	482.1
350.0	435.8
345.0	373.9
340.0	343.9
335.0	332.5
330.0	323.5
325.0	311.4
320.0	297.2
315.0	280.3
310.0	262.5
300.0	228.8
285.0	208.7
270.0	209.9

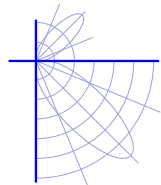
Principal Conical Surface



	Maximum luminous intensity
House Side	510.2 cd @ (0.0, 73.5)
Street Side	527.0 cd @ (7.5, 73.5)

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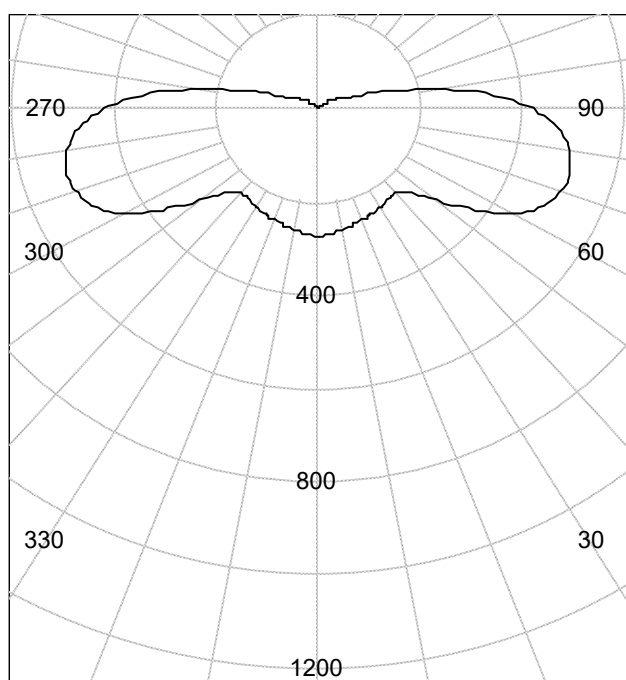
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Tested at 240 V 50 Hz. Spigot mount in C270 position.

Polar curve through CIE C0 / C180

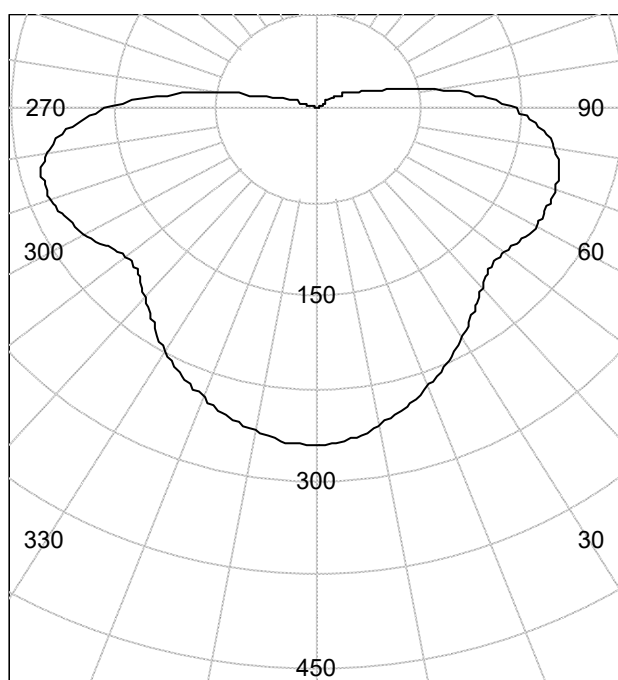


Downstream
(C180)

(cd)

Upstream
(C0)

Polar curve through CIE C90 / C270



Kerbside
(C270)

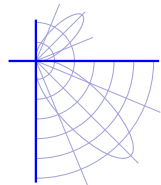
(cd)

Streetside
(C90)

Performance Parameters

I_{80}	=	497.8	cd
I_{88}	=	441.4	cd
I_{90}	=	421.9	cd
I_{80} / I_{88}	=	1.128	

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



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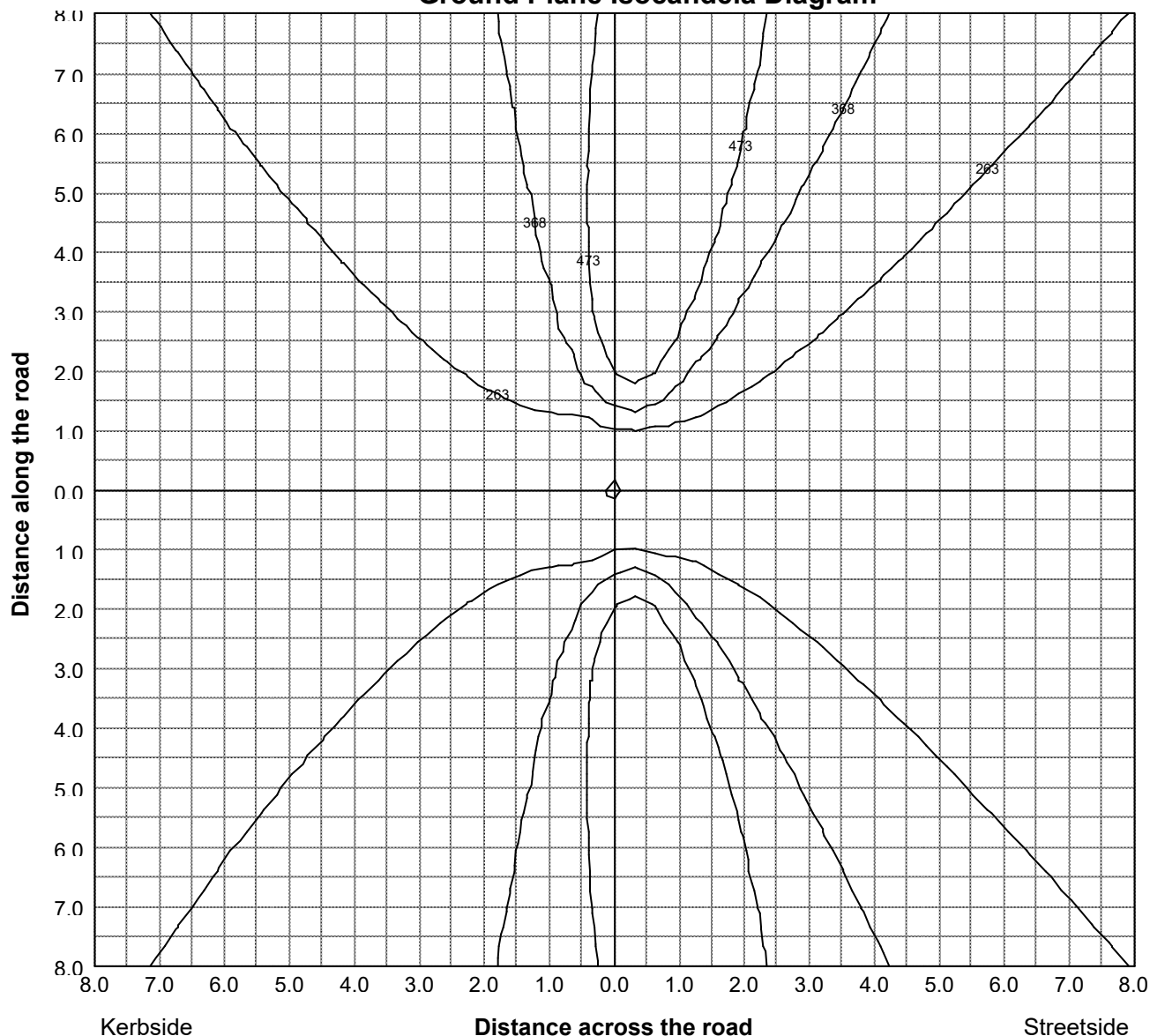
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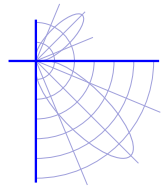
One Atco OMB80-03 250V 50Hz magnetic ballast.

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.



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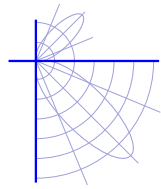
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Tested at 240 V 50 Hz. Spigot mount in C270 position.

Kerb side luminous intensity data (cd)

Gamma (°)	C-Plane								
	C270	C285	C300	C310	C315	C320	C325	C330	C335
0.0	270.6	270.6	270.6	270.6	270.6	270.6	270.6	270.6	270.6
10.0	263.5	263.6	263.6	263.7	263.7	263.9	263.8	264.0	263.8
20.0	246.8	247.1	248.8	249.5	249.9	250.4	250.5	251.0	251.2
30.0	224.9	225.4	227.6	229.5	230.8	232.5	233.5	235.4	236.7
35.0	211.1	211.6	213.8	216.3	217.9	219.9	221.6	224.0	226.3
40.0	197.5	198.3	200.5	203.2	205.4	208.1	210.9	214.3	217.4
45.0	187.4	188.2	191.0	195.3	198.5	202.0	206.5	211.4	216.6
47.5	184.9	185.7	189.4	195.4	199.6	204.0	209.8	216.1	222.8
50.0	185.0	185.8	190.6	199.2	204.6	210.7	217.9	225.6	234.3
52.5	187.3	188.0	194.4	206.4	214.0	222.0	231.4	240.8	250.2
55.0	191.1	191.8	200.1	215.8	225.7	235.3	247.1	257.2	269.5
57.5	195.7	196.0	206.4	226.7	239.4	251.0	263.3	275.4	287.7
60.0	199.7	199.7	212.4	236.6	250.7	264.8	278.5	290.4	302.8
62.5	202.3	202.2	216.8	244.2	260.3	275.1	289.6	303.0	315.2
65.0	204.9	204.5	221.1	251.1	268.1	284.1	298.7	312.1	324.1
67.5	207.4	206.7	224.8	256.7	273.9	290.6	305.5	318.7	329.6
70.0	209.3	208.5	227.8	260.6	278.5	295.3	310.0	322.7	332.8
72.5	210.1	209.1	228.9	262.5	280.3	297.3	311.7	323.9	333.3
75.0	209.3	208.0	228.0	261.8	279.7	296.5	310.5	322.1	330.8
77.5	207.0	205.4	225.2	259.1	276.8	293.5	306.8	317.7	326.0
80.0	202.6	200.4	220.1	254.1	271.8	288.0	300.5	311.1	318.6
82.5	195.0	193.3	212.0	245.5	262.9	279.1	290.9	301.1	308.3
85.0	185.5	183.1	201.1	234.0	251.0	266.8	278.2	287.8	294.8
87.5	172.7	169.4	186.8	217.7	234.6	248.9	260.1	269.5	277.1
90.0	157.0	155.2	169.6	199.9	214.5	227.6	238.0	246.8	254.6
92.5	139.8	137.7	149.4	176.4	190.0	201.5	209.6	218.8	225.8
95.0	118.4	117.4	128.8	153.3	164.9	174.5	181.6	189.7	196.7
97.5	96.4	97.0	106.9	128.7	138.0	145.8	150.7	158.0	166.1
100.0	74.0	76.3	86.9	103.9	112.7	118.8	123.2	129.3	135.6
102.5	56.1	57.9	68.3	81.5	88.1	92.6	95.8	100.0	107.1
105.0	40.5	43.8	51.9	63.6	68.4	71.7	74.2	77.2	82.2
120.0	2.3	4.5	10.1	15.2	17.3	19.3	21.1	24.5	29.3
135.0	0.0	0.0	0.6	3.1	4.6	5.6	8.5	11.1	13.2
150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1	1.9
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



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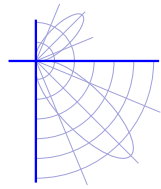
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One Atco OMB80-03 250V 50Hz magnetic ballast.

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

Gamma (°)	Kerb side		Luminous intensity data (cd)						Road side	
			C-Plane							
	C340	C345	C350	C355	C0	C5	C10	C15	C20	
0.0	270.6	270.6	270.6	270.6	270.6	270.6	270.6	270.6	270.6	270.6
10.0	263.9	263.7	263.5	263.5	263.2	263.1	263.0	262.5	262.2	262.2
20.0	251.6	251.8	251.9	252.0	251.8	251.5	251.1	250.2	249.3	249.3
30.0	238.5	240.0	241.1	241.8	241.8	241.5	240.2	238.5	236.2	236.2
35.0	228.8	231.3	233.5	235.3	236.1	236.1	234.9	232.6	229.6	229.6
40.0	221.0	224.6	228.8	232.7	235.1	236.3	235.8	232.6	228.3	228.3
45.0	222.0	228.0	234.9	243.9	252.1	258.1	259.2	254.7	244.5	244.5
47.5	229.1	237.0	246.8	259.2	273.0	283.6	285.2	279.6	265.4	265.4
50.0	242.8	252.6	264.7	281.8	303.5	317.3	321.0	313.2	293.1	293.1
52.5	260.6	271.3	290.0	313.6	339.1	358.4	362.5	352.7	328.2	328.2
55.0	279.1	294.2	317.0	350.5	375.5	397.3	402.8	393.6	366.2	366.2
57.5	299.0	315.8	348.6	384.5	416.0	437.2	437.3	428.8	402.5	402.5
60.0	314.6	333.6	374.3	415.3	447.1	464.4	466.5	457.8	429.3	429.3
62.5	326.9	348.2	395.5	440.5	469.7	485.7	487.5	477.5	451.8	451.8
65.0	336.0	359.7	413.5	459.0	486.9	502.4	503.4	491.7	466.9	466.9
67.5	341.6	368.1	425.3	471.4	498.8	514.0	513.9	501.6	477.0	477.0
70.0	344.6	373.2	433.3	479.1	506.3	521.5	520.8	507.2	482.5	482.5
72.5	344.8	374.4	436.1	482.1	509.7	525.2	524.0	509.5	484.6	484.6
75.0	342.2	372.1	434.3	481.0	509.5	525.3	523.7	508.0	483.0	483.0
77.5	337.1	366.2	428.2	475.7	505.4	521.9	519.6	503.6	477.5	477.5
80.0	329.2	356.8	418.4	466.9	497.8	514.4	512.5	495.5	468.8	468.8
82.5	318.5	343.9	403.3	453.6	485.8	503.1	500.6	483.9	456.3	456.3
85.0	304.8	327.6	384.6	435.8	469.6	487.1	485.8	467.7	438.9	438.9
87.5	286.9	306.9	360.6	412.3	447.5	466.2	463.4	446.9	416.7	416.7
90.0	265.5	282.3	330.9	384.4	421.9	439.9	438.9	421.3	389.6	389.6
92.5	238.3	254.6	297.9	350.5	386.5	406.2	406.6	389.4	354.3	354.3
95.0	209.4	226.7	263.3	311.2	346.8	368.8	368.7	350.3	315.3	315.3
97.5	177.7	193.8	223.1	265.3	302.0	320.1	320.3	303.2	269.3	269.3
100.0	146.2	160.9	184.2	220.7	251.6	269.1	268.6	253.0	222.1	222.1
102.5	116.2	131.0	148.5	176.8	202.1	216.2	221.4	205.9	180.5	180.5
105.0	93.2	105.7	118.1	137.4	160.7	173.8	176.4	163.0	143.3	143.3
120.0	34.3	37.2	39.6	42.2	44.4	45.5	45.3	44.4	42.0	42.0
135.0	15.0	16.3	17.4	18.4	19.1	19.4	19.1	18.5	17.3	17.3
150.0	2.5	2.9	3.1	3.3	3.5	3.5	3.4	3.2	3.0	3.0
165.0	0.0	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	0.0



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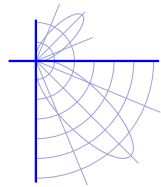
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One Atco OMB80-03 250V 50Hz magnetic ballast.

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	270.6	270.6	270.6	270.6	270.6	270.6	270.6	270.6	270.6
10.0	261.9	261.7	261.3	261.0	260.6	260.3	259.6	258.9	259.0
20.0	248.3	247.3	245.9	244.7	243.8	242.7	240.5	238.0	237.0
30.0	233.7	231.2	228.4	225.5	223.1	220.9	216.8	213.0	211.2
35.0	226.2	222.4	218.3	214.5	211.5	208.5	203.8	200.1	198.7
40.0	223.3	217.4	211.4	206.1	201.5	197.7	192.5	188.4	186.7
45.0	233.7	223.9	214.7	206.8	200.0	194.6	187.2	181.1	179.1
47.5	247.8	234.4	223.2	213.1	204.3	197.3	188.1	180.2	177.7
50.0	268.1	250.3	236.0	224.6	213.5	204.0	191.7	181.6	178.4
52.5	297.5	271.5	252.7	239.7	226.0	213.8	197.7	184.7	180.6
55.0	327.8	292.7	272.2	256.3	240.3	224.4	204.6	188.3	182.8
57.5	360.8	315.3	290.3	271.5	253.3	235.6	211.5	191.6	184.7
60.0	386.9	336.3	304.8	284.3	265.0	245.1	216.5	193.8	185.7
62.5	407.9	352.7	315.6	293.5	273.4	252.2	219.7	194.6	185.5
65.0	423.7	364.7	324.2	300.3	279.7	257.8	222.4	195.3	185.5
67.5	433.4	373.5	329.8	304.8	284.4	262.3	224.9	196.1	185.6
70.0	439.8	379.2	334.3	308.3	287.7	265.5	226.7	196.6	185.5
72.5	441.8	381.2	336.0	309.3	288.8	266.8	227.1	196.0	184.4
75.0	439.5	379.3	334.4	307.9	287.7	265.9	225.9	194.4	182.4
77.5	433.5	374.1	330.2	304.1	284.6	263.1	223.1	191.6	179.2
80.0	423.2	365.8	323.8	298.5	279.6	258.5	218.7	187.7	175.2
82.5	409.2	353.4	313.9	290.0	271.9	251.2	212.5	181.7	169.7
85.0	390.5	338.2	301.5	279.3	261.8	242.6	204.0	174.4	163.3
87.5	366.5	317.6	284.5	264.2	248.8	229.4	193.3	165.1	154.6
90.0	338.1	294.0	265.2	247.5	233.2	215.1	180.9	154.8	144.9
92.5	306.0	266.2	242.1	226.5	213.5	197.3	166.9	142.8	133.5
95.0	273.0	238.4	217.2	203.3	192.1	178.1	150.4	130.3	120.8
97.5	233.8	204.2	188.9	178.0	169.0	156.1	133.3	115.3	106.5
100.0	195.0	174.6	161.8	152.5	145.3	134.7	115.0	100.3	92.2
102.5	158.4	143.6	134.5	127.6	119.8	112.4	97.0	84.9	78.2
105.0	128.9	116.9	111.5	105.0	99.2	93.2	81.7	71.1	65.9
120.0	39.5	36.6	34.4	32.6	31.5	30.1	28.2	27.4	26.9
135.0	16.3	14.3	12.3	10.0	10.5	10.4	9.4	10.5	11.8
150.0	2.6	1.7	0.9	0.1	0.0	0.0	0.4	1.5	1.9
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. LL24636

Western Power. Product ID: 80 W Mercury Vapour Round Body with 18 W LED 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 Philips 18W 9290023499 LED 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	24.9 °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.

