

Report of Test LL24644

Western Power. Product ID: 70 W Metal Arc Roadster Body with 42 W LED Lamp.
Cast aluminium body with white and raw finish and black plastic gear cover, overall extents ~ 465 x 275 x 125 mm deep. Clear bowl lens with prismatic ribbing forms luminous volume of 313 x 270 x 75 mm deep.
Specular hammertone reflectors about lamp. One Philips 42 W 9290020065 lamp centred in L/V.
One Tridonic OMS70A-05 250V 50Hz magnetic ballast.
Tested at 240 V 50 Hz. Spigot mount in C270 position.



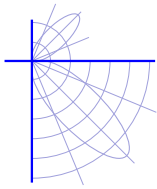
Performance Summary

Luminous Flux	3688 lm
Total Luminaire Power	43.5 W
Luminous Efficacy	84.8 lm / W

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

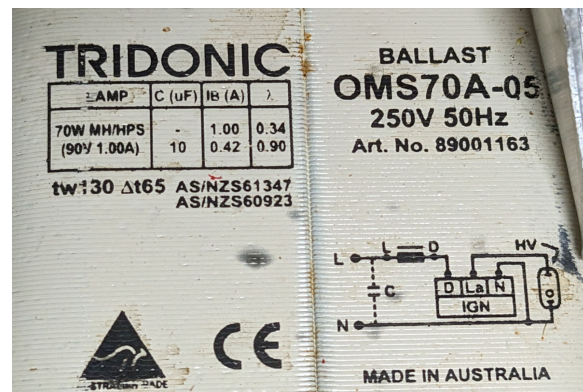
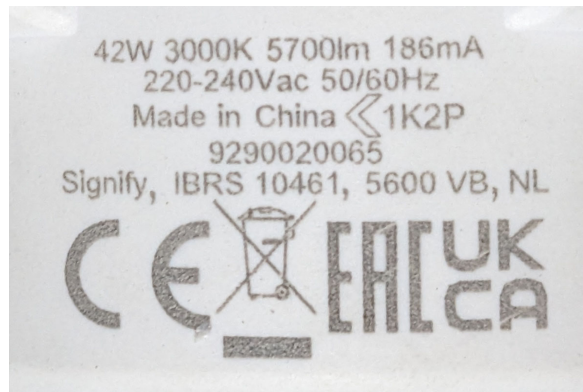
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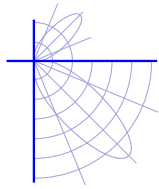




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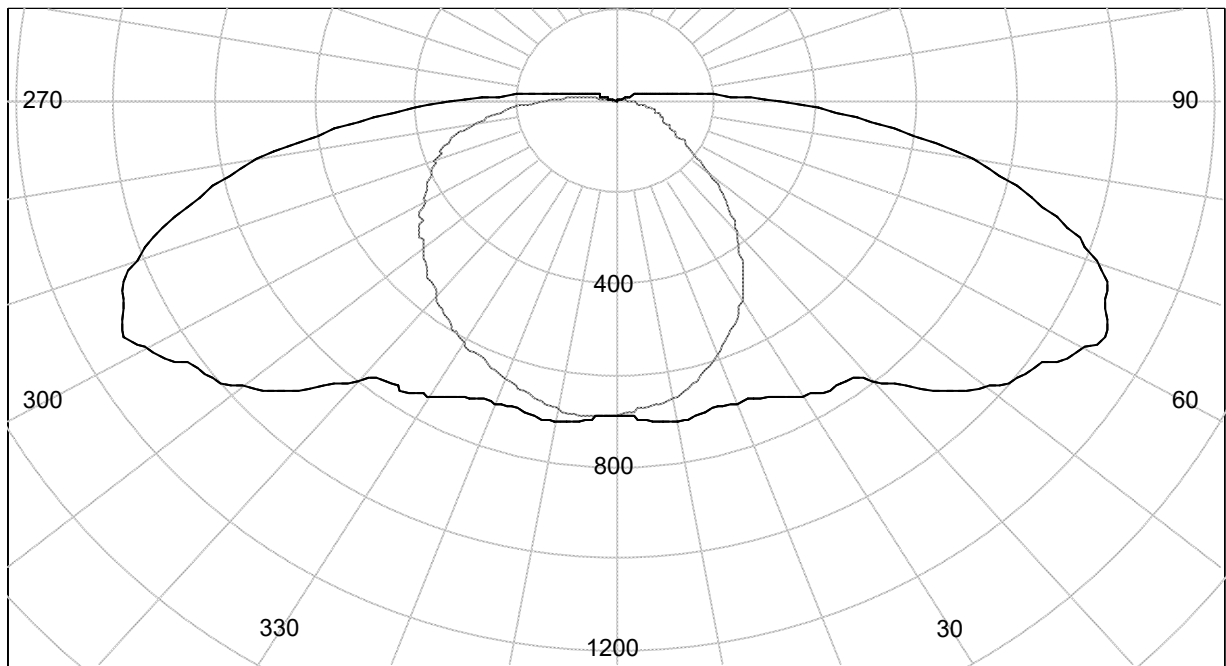
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Polar Light Distribution Curves



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	57.2	1566	1623 lm
House Side	92.9	1973	2066 lm
Total Luminous Flux			3688 lm

Certified by:


 Toby Southgate
 Authorised Signatory

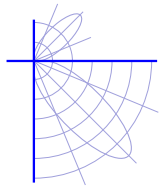
Date of test

10-May-2023

Date of report

05-Jun-2023





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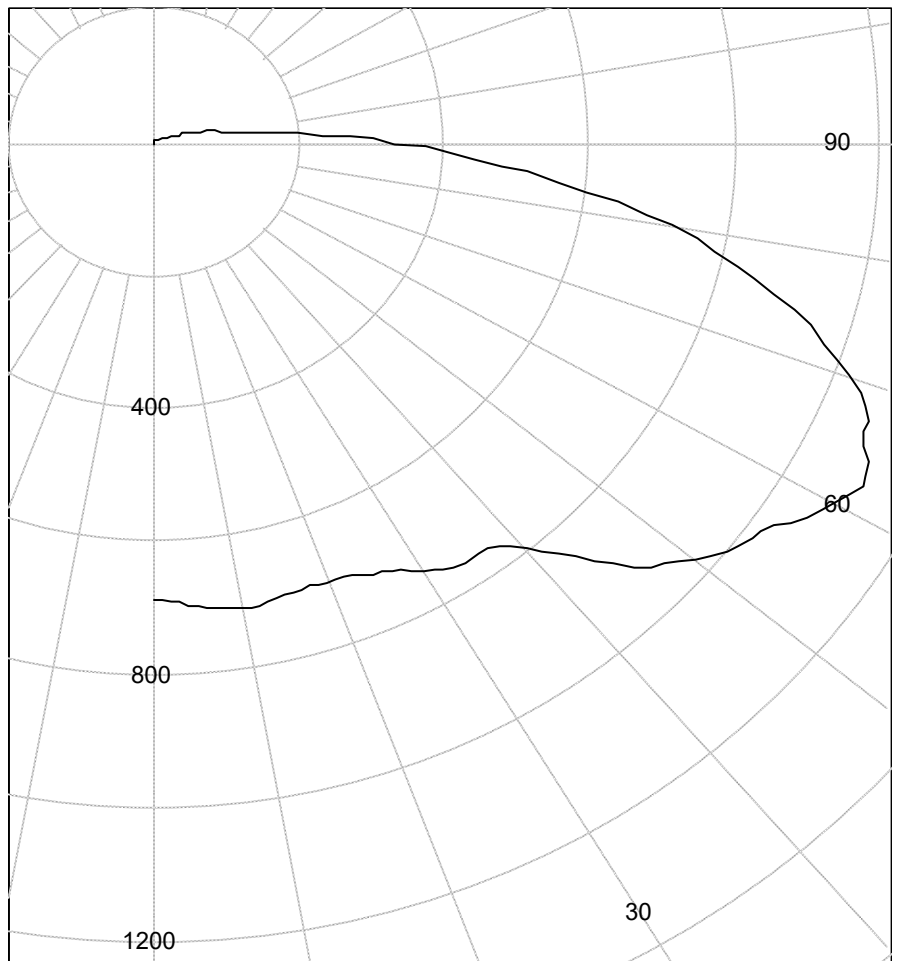
One Tridonic OMS70A-05 250V 50Hz magnetic ballast.

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

Luminous intensity
in principal plane

Gamma (°)	Intensity (cd)
0.0	688.0
10.0	711.9
20.0	704.0
30.0	753.1
35.0	778.5
40.0	811.1
45.0	907.8
47.5	955.3
50.0	995.6
52.5	1024
55.0	1049
57.5	1065
60.0	1100
62.5	1119
65.0	1137
67.5	1107
70.0	1079
72.5	1023
75.0	942.7
77.5	881.7
80.0	783.5
82.5	647.9
85.0	539.1
87.5	446.2
90.0	350.1
92.5	254.4
95.0	183.9
97.5	133.0
100.0	106.4
102.5	82.4
105.0	64.6
120.0	7.3
135.0	0.0
150.0	0.0
165.0	0.0
180.0	0.0

Principal Vertical Plane



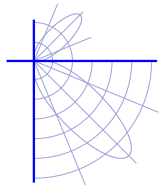
Legend: Plane of maximum luminous intensity (cd)

	Maximum luminous intensity
House Side	1140 cd @ (352.5, 64.5)
Street Side	1106 cd @ (0.0, 62.0)

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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Specular hammertone reflectors about lamp. One Philips 42 W 9290020065 lamp centred in L/V.

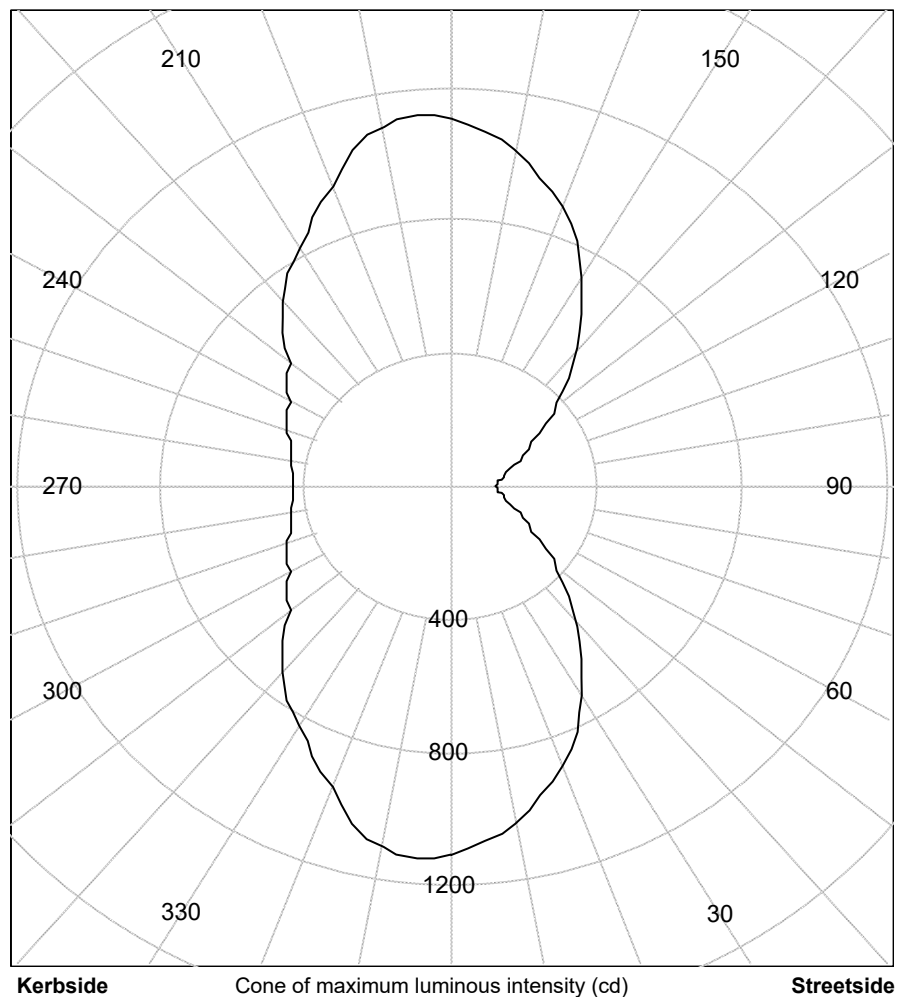
One Tridonic OMS70A-05 250V 50Hz magnetic ballast.

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

Luminous intensity in principal cone

C-Plane (°)	Intensity (cd)
90.0	111.3
75.0	143.0
60.0	251.4
50.0	376.1
45.0	447.3
40.0	530.4
35.0	637.1
30.0	744.2
25.0	836.6
20.0	917.7
15.0	977.2
10.0	1012
5.0	1050
0.0	1089
355.0	1133
350.0	1120
345.0	1055
340.0	976.5
335.0	899.3
330.0	822.3
325.0	769.3
320.0	705.2
315.0	645.4
310.0	583.6
300.0	501.5
285.0	443.6
270.0	416.3

Principal Conical Surface

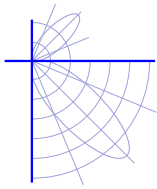


House Side Maximum luminous intensity
1140 cd @ (352.5, 64.5)

Street Side 1106 cd @ (0.0, 62.0)

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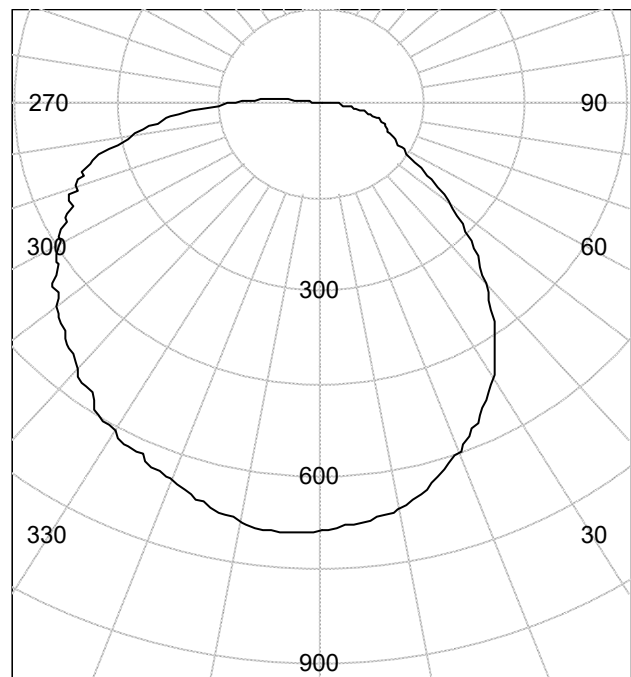
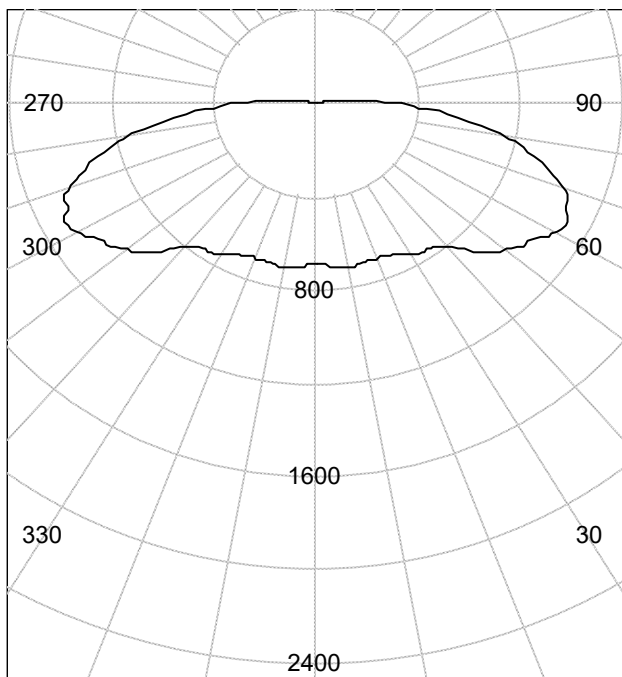
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Polar curve through CIE C0 / C180

Polar curve through CIE C90 / C270



**Downstream
(C180)**

(cd)

**Upstream
(C0)**

**Kerbside
(C270)**

(cd)

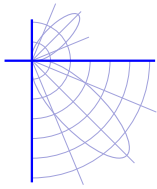
**Streetside
(C90)**

Performance Parameters

I_{80}	=	725.6	cd
I_{88}	=	403.0	cd
I_{90}	=	334.4	cd
I_{80} / I_{88}	=	1.801	

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

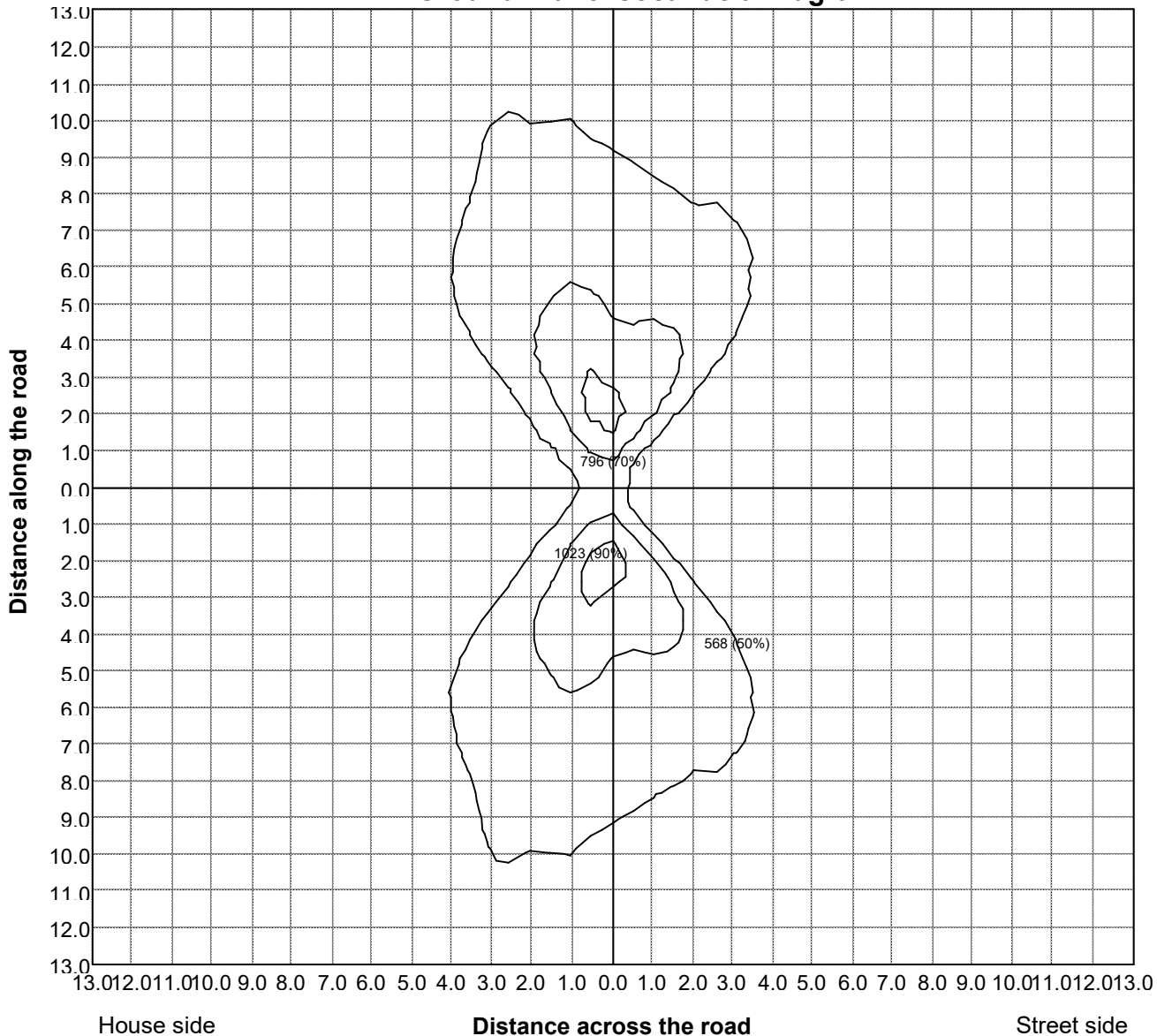




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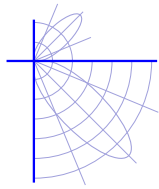
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Ground Plane Isocandela Diagram



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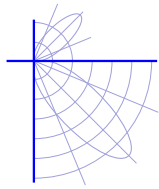
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Tested at 240 V 50 Hz. Spigot mount in C270 position.

Kerb side luminous intensity data (cd)

Gamma (°)	C-Plane								
	C270	C285	C300	C310	C315	C320	C325	C330	C335
0.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
10.0	683.9	691.4	699.7	705.0	707.1	708.9	710.6	711.9	713.5
20.0	644.0	656.6	671.9	676.4	680.4	684.1	688.2	693.2	698.6
30.0	607.6	626.1	648.9	660.2	663.8	679.2	693.8	705.6	725.6
35.0	581.3	603.4	636.9	647.4	661.2	678.7	695.4	722.9	752.4
40.0	556.9	581.3	622.6	635.7	654.7	674.6	708.6	733.1	762.9
45.0	531.0	553.3	604.1	625.9	652.3	690.4	714.8	744.1	782.5
47.5	516.4	535.0	595.5	626.5	655.4	697.9	725.9	767.0	825.2
50.0	506.3	520.6	583.2	620.5	657.6	698.2	737.1	795.7	859.9
52.5	490.9	506.9	575.3	614.4	654.5	704.8	756.2	824.0	892.7
55.0	475.4	493.6	552.4	603.5	654.4	709.4	773.2	840.9	896.8
57.5	462.7	480.7	542.2	593.4	650.6	724.3	789.2	848.5	897.2
60.0	438.0	470.7	527.3	585.2	653.4	724.5	785.8	838.0	892.7
62.5	422.9	455.5	512.9	579.7	655.2	720.6	774.5	829.5	894.8
65.0	413.4	441.3	498.0	584.3	640.1	700.3	767.7	820.1	898.5
67.5	398.1	424.9	485.2	570.3	622.4	686.9	749.8	812.0	899.8
70.0	384.7	402.9	464.1	547.5	599.9	668.4	725.5	802.5	907.4
72.5	365.2	381.7	451.3	519.4	580.9	645.1	712.5	795.2	887.3
75.0	346.4	361.0	433.1	486.6	550.4	626.0	695.7	783.5	859.8
77.5	315.9	331.8	401.7	457.1	531.4	604.8	677.3	748.0	804.5
80.0	276.4	296.8	366.6	423.2	501.9	563.2	633.2	676.0	715.4
82.5	247.6	260.3	318.3	388.0	450.9	499.9	543.4	576.0	602.7
85.0	220.4	226.4	270.2	350.5	389.7	423.8	452.8	471.7	497.7
87.5	183.0	196.2	226.1	291.5	313.1	336.3	379.8	374.0	405.9
90.0	139.2	156.9	170.4	220.7	229.0	267.3	278.1	301.6	328.0
92.5	110.4	113.5	117.3	143.5	152.1	189.2	198.2	217.8	235.2
95.0	90.5	88.8	84.6	87.3	102.2	122.9	130.8	131.4	152.9
97.5	70.5	64.3	62.5	60.3	71.1	84.3	83.1	88.6	101.2
100.0	46.8	39.6	41.1	39.3	48.9	57.7	59.0	63.9	74.6
102.5	27.5	21.3	20.6	25.9	33.2	38.6	39.1	44.2	53.4
105.0	13.5	12.1	13.1	17.7	21.7	25.1	26.4	30.0	37.4
120.0	0.0	0.0	0.0	0.2	0.7	1.5	2.4	3.4	4.5
135.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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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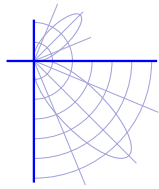
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Tested at 240 V 50 Hz. Spigot mount in C270 position.

Gamma (°)	Kerb side		Luminous intensity data (cd)						Road side	
	C340	C345	C350	C355	C-Plane		C10	C15	C20	
					C0	C5				
0.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	
10.0	713.2	712.5	712.1	711.3	710.5	709.0	707.4	704.6	702.5	
20.0	701.6	703.9	705.4	703.3	703.1	700.8	697.4	692.5	688.0	
30.0	738.0	748.6	752.0	752.0	744.6	732.9	714.4	696.4	677.3	
35.0	775.4	784.8	782.9	775.6	764.1	748.8	730.3	704.5	677.4	
40.0	776.4	797.1	805.6	806.9	798.5	778.5	744.6	708.8	676.0	
45.0	839.9	876.2	901.7	908.7	897.0	869.9	835.1	784.0	732.6	
47.5	883.0	929.8	951.3	954.9	940.2	913.2	874.0	822.7	757.5	
50.0	923.8	962.1	985.4	992.5	972.5	943.1	889.6	837.0	781.9	
52.5	938.7	986.3	1019	1024	1004	969.4	914.6	859.6	800.6	
55.0	947.1	1001	1041	1042	1019	987.5	938.5	884.9	825.2	
57.5	951.5	1018	1055	1064	1057	1020	975.9	911.2	845.8	
60.0	963.9	1031	1084	1101	1084	1052	1004	946.8	861.9	
62.5	963.6	1051	1101	1131	1106	1073	1027	962.4	901.3	
65.0	980.5	1058	1124	1125	1078	1043	1009	975.5	920.7	
67.5	985.8	1079	1109	1099	1066	1033	1007	969.2	931.0	
70.0	990.6	1052	1079	1071	1020	983.5	977.4	971.0	927.0	
72.5	962.9	1001	1038	1013	959.4	931.6	924.4	923.1	909.4	
75.0	907.7	950.0	963.1	925.3	884.2	859.4	868.4	877.0	864.9	
77.5	845.9	877.9	890.1	863.0	807.1	790.3	802.6	808.7	807.7	
80.0	736.1	774.5	796.5	765.9	725.6	710.8	715.5	717.4	707.3	
82.5	627.2	672.2	668.2	648.2	619.2	610.0	594.8	586.9	591.8	
85.0	526.9	554.7	544.7	543.5	515.5	502.9	490.0	488.0	477.4	
87.5	424.1	434.7	448.0	444.3	420.6	411.0	394.6	386.6	369.0	
90.0	337.1	349.4	359.9	348.8	334.4	326.8	314.0	298.5	281.7	
92.5	253.0	263.8	262.5	258.6	249.0	238.3	223.7	209.8	194.6	
95.0	166.9	178.9	182.3	187.1	173.6	158.7	143.2	133.6	118.0	
97.5	110.6	121.2	129.5	132.8	119.3	108.7	94.2	82.7	70.5	
100.0	84.3	96.0	105.2	105.2	94.4	85.4	75.2	63.8	52.7	
102.5	62.0	73.9	81.1	83.5	76.6	68.3	59.4	49.3	39.5	
105.0	44.8	55.4	62.3	65.2	62.8	54.9	47.8	38.9	30.5	
120.0	5.7	6.6	7.0	7.3	7.1	6.4	5.7	5.0	4.2	
135.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
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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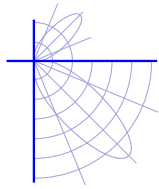
One Tridonic OMS70A-05 250V 50Hz magnetic ballast.

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	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
10.0	699.9	696.8	694.5	691.4	687.8	682.7	674.3	666.9	662.0
20.0	684.4	679.4	674.9	669.6	663.7	655.8	638.7	607.3	593.5
30.0	659.2	644.5	626.0	611.9	597.8	590.4	568.4	523.5	503.6
35.0	647.2	617.1	590.9	570.5	553.7	538.8	516.9	466.5	441.4
40.0	638.8	598.7	561.6	522.3	494.8	475.8	452.7	398.6	374.9
45.0	669.5	611.9	550.9	492.9	441.3	412.0	378.5	327.4	311.7
47.5	690.3	622.7	556.8	489.1	426.5	384.3	342.6	290.7	276.8
50.0	705.5	632.6	569.9	497.7	430.1	373.7	312.8	259.3	242.8
52.5	731.2	656.7	594.5	524.1	454.5	386.7	298.3	228.4	208.8
55.0	752.4	681.9	617.3	552.4	485.6	414.5	298.6	204.5	178.6
57.5	772.1	702.9	629.6	563.2	494.3	426.9	299.0	186.5	153.4
60.0	795.0	715.3	635.9	555.3	476.2	405.5	278.5	168.2	135.6
62.5	814.9	726.7	630.4	538.4	454.5	382.1	254.1	152.6	120.6
65.0	844.1	750.7	637.2	529.4	447.3	375.1	251.6	141.2	109.4
67.5	864.0	769.3	649.9	530.9	445.1	373.9	255.2	135.9	103.5
70.0	880.2	787.2	657.1	528.4	439.9	378.0	257.5	132.8	99.1
72.5	866.7	791.7	656.4	523.8	439.2	373.6	253.9	132.1	93.1
75.0	836.9	767.7	648.3	513.9	430.4	361.2	250.2	126.4	83.6
77.5	775.7	734.2	630.4	503.7	416.7	345.0	243.4	111.9	72.3
80.0	706.4	664.0	573.9	468.4	387.9	320.4	221.9	96.7	62.1
82.5	577.1	537.8	475.9	397.9	335.7	289.5	199.3	85.8	52.1
85.0	451.6	413.6	361.7	314.1	268.6	251.2	167.5	72.1	42.4
87.5	338.2	309.2	273.3	232.7	212.6	184.3	119.5	54.0	32.9
90.0	254.5	227.9	187.4	170.1	156.4	102.7	73.5	38.2	26.4
92.5	164.7	149.2	122.6	113.6	88.0	51.0	38.3	27.3	21.8
95.0	96.8	83.9	63.5	55.2	38.5	28.4	24.5	20.4	18.3
97.5	57.8	45.9	35.6	29.7	25.4	21.9	17.5	15.9	16.0
100.0	42.2	34.4	27.7	23.8	20.2	18.4	14.5	13.2	14.5
102.5	31.0	25.6	21.6	18.8	16.5	15.0	12.2	10.8	12.5
105.0	23.6	19.6	16.9	14.6	13.2	12.2	9.9	8.8	10.5
120.0	3.4	2.8	2.1	1.6	1.1	0.7	0.5	1.1	1.8
135.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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. LL24644

Western Power. Product ID: 70 W Metal Arc Roadster Body with 42 W LED Lamp.

Cast aluminium body with white and raw finish and black plastic gear cover, overall extents ~ 465 x 275 x 125 mm deep. Clear bowl lens with prismatic ribbing forms luminous volume of 313 x 270 x 75 mm deep.

Specular hammertone reflectors about lamp. One Philips 42 W 9290020065 lamp centred in L/V.

One Tridonic OMS70A-05 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.

