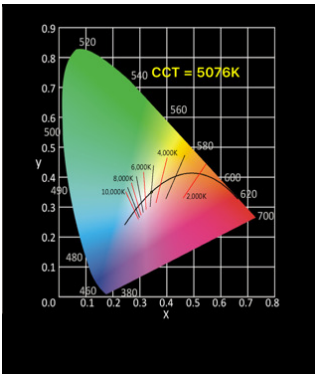
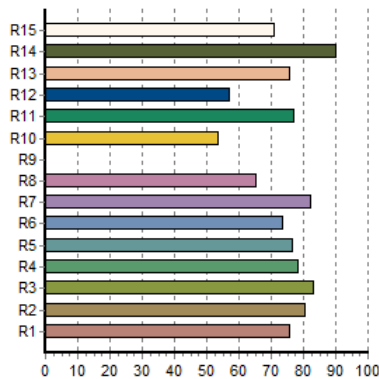


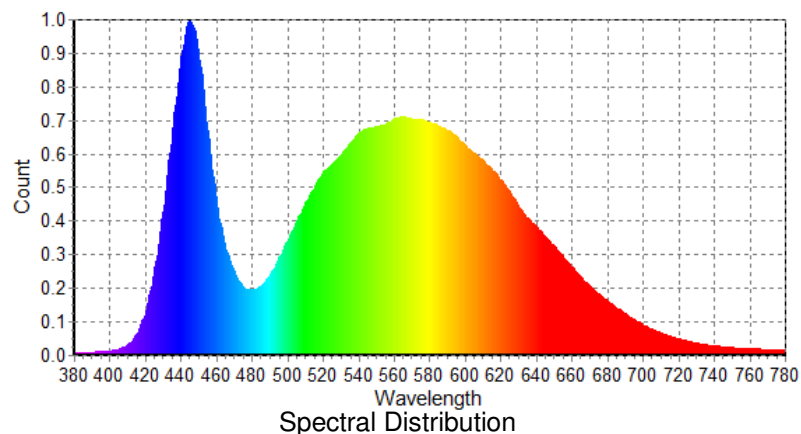
Report of Photometry & Chromaticity for Morgan Hope Industries Ltd. ASTRID HighLite 120W XL - 120W LED Floodlight



CIE1931 Chromaticity Diagram



Histogram Diagram of CRI



A. Product Description

Product Name 120W led floodlight

Date 12-10-2016

Manufacturer Morgan Hope Industries Ltd.

Tester lightlab photometrics

Reviewer KB

Temperature 25degC
















Re. Humidity(%) 53

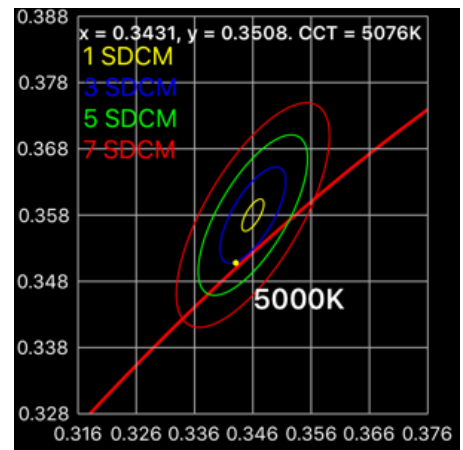
Spectrum Range : 380 ~ 780 nm.

Wavelength Step : 1 nm.

C. Photometry and Chromaticity

CIE_x	0.3431	Δv	0.0004
CIE_y	0.3508	Ld(nm)	571.2
CIE_u'	0.2104	Purity(%)	8.2
CIE_v'	0.4840	FWHM(nm)	28.5
CCT(K)	5076	SP ratio	1.84
Luminaire lumens	9870	PPFD(umol/sec m ²)	
Lp(nm)	445.0		88.4
TLCI(Qa)	58.59	GAI	84.7

CRI(Ra)		77	Re(thru R1~R15)		70
Qa		76			
 R1	76.2	 R6	73.8	 R11	77.5
 R2	80.7	 R7	82.7	 R12	57.4
 R3	83.4	 R8	65.7	 R13	76.2
 R4	78.5	 R9	-1.3	 R14	90.5
 R5	77.1	 R10	53.8	 R15	71.2



IEC SDCM

filename : Astrid-HighLite-120W-XL.LDT
 meas. number : 2074
 luminaire number : Astrid HighLite 120W-XL
 date / operator : 11-10-2016



default lamp type(s)

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	9870 lm	119.6 W

dimensions

luminaire	length	width	height	luminous area	length	width	height
	370 mm	290 mm	100 mm		290 mm	215 mm	0 mm

coordinate system

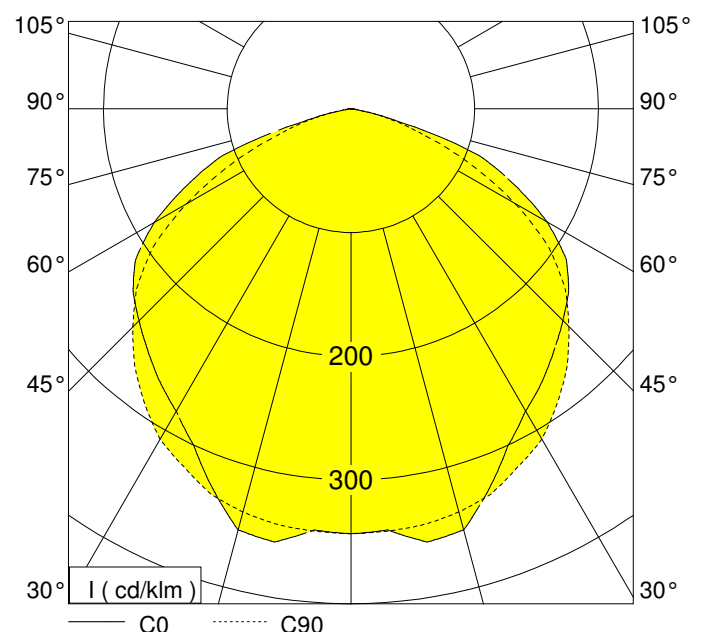
no of planes	7	samples / plane	37
first c-plane	0.0 °	first gamma-angle	0.0 °
step angle	15.0 °	step angle	5.0 °
last c-plane	90.0 °	last gamma-angle	180.0 °
symmetrics	: symmetry to C0 / C90		

performance

light output ratio	100.0 %
DFF	100.0 %
UFF	0.0 %

classification

LiTG / DIN	A40
UTE	1.00D1.00E
CIE	48 82 99 100 100
BZ	4 4 4 4 4 4 4 4 4
Ambient Temperature	25 degC
Input Voltage	240 V
Circuit Watts	119.6W
Amps (running)	0.536A
V.A.	128.60VA
Power Factor	0.93
CCT	5076K (measured): 5000K (declared)
CRI (Ra)	77
S/P	1.84
Luminaire Lumens	9870 LLm
Luminaire Lm/circ.Watt	82.53 Lm/circ.Watt

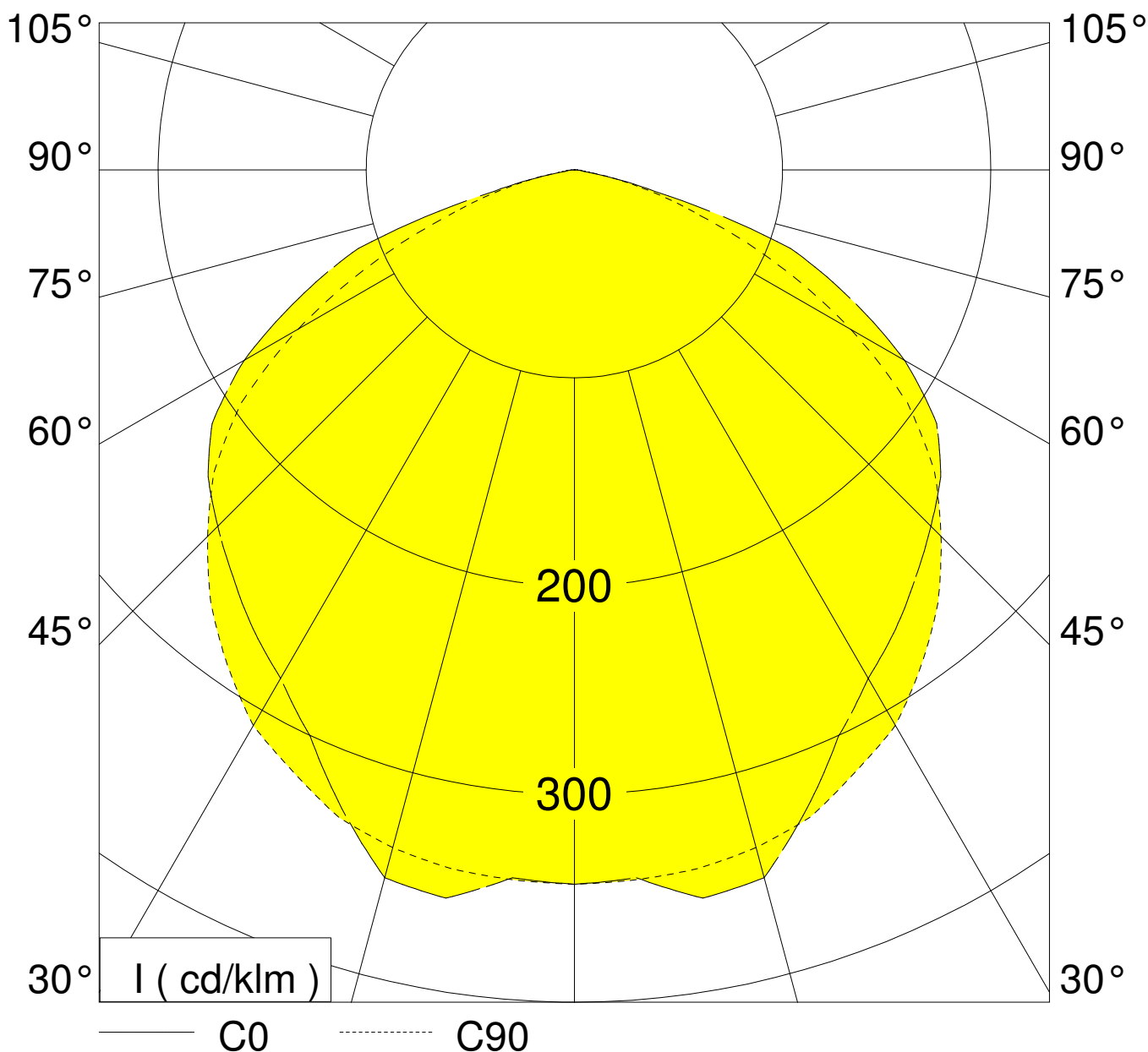


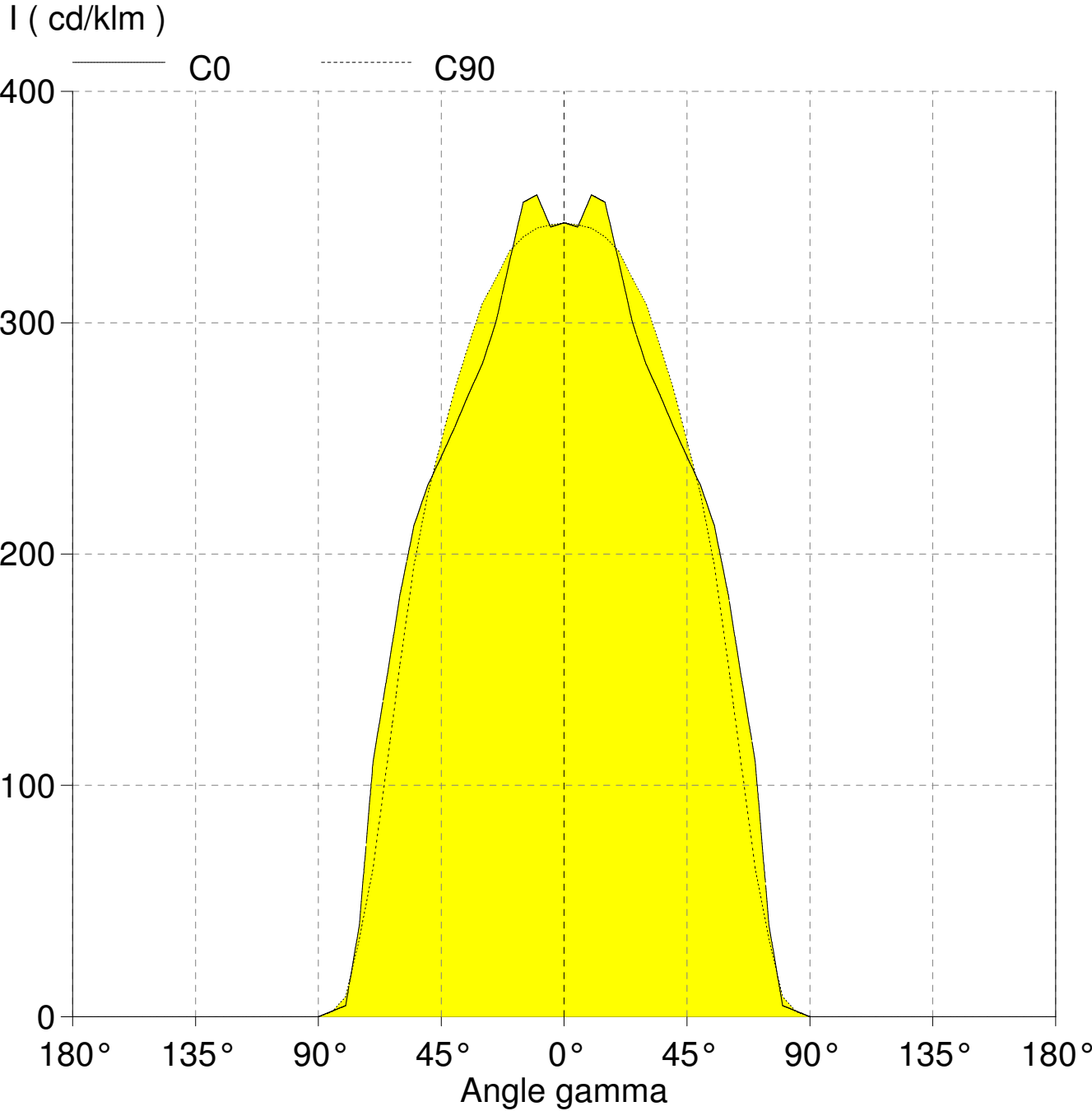
Measurements made are in absolute units. The luminaire is treated as if it was a lamp as it is not possible to measure each LED separately - hence an LOR of 100%

The Light output ratio in real terms would be less than 100%. If it was possible to compare

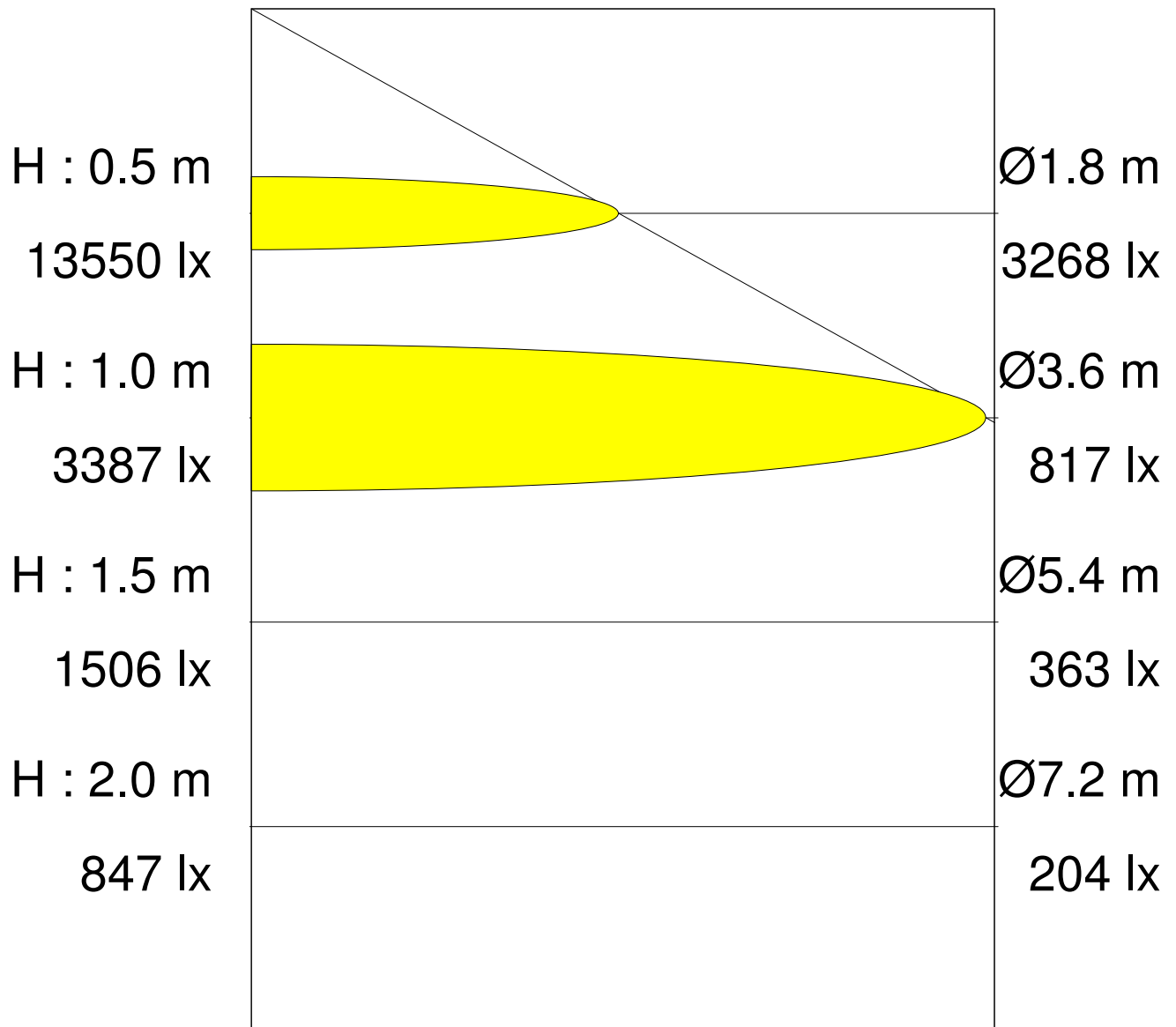
real LED lumens with the total output from the luminaire we could obtain an actual LOR

This also means that the total lumens emitted from the LED's would be greater than the Luminaire Lumens measured. In reality the LED lumens would approximate to this value divided by the actual Light Output.





Half peak divergence : 121.8°



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0
0.0°	343.20	343.20	343.20	343.20	343.20	343.20	343.20
5.0°	341.40	345.10	348.80	345.60	342.30	342.30	342.30
10.0°	355.30	357.50	359.60	353.50	347.40	344.20	340.90
15.0°	352.10	354.00	355.90	355.40	354.90	346.00	337.10
20.0°	326.50	330.00	333.40	342.80	352.10	341.50	331.00
25.0°	300.20	304.90	309.60	322.90	336.20	327.70	319.20
30.0°	282.10	287.30	292.50	304.30	316.20	312.30	308.30
35.0°	269.10	273.30	277.50	285.00	292.50	291.50	290.50
40.0°	255.10	258.40	261.70	265.60	269.60	270.60	271.60
45.0°	242.10	244.00	245.80	246.30	246.70	247.80	249.00
50.0°	229.60	229.50	229.50	224.10	218.70	222.30	225.80
55.0°	212.40	211.10	209.90	200.70	191.60	193.40	195.20
60.0°	183.20	181.30	179.60	172.60	165.60	159.40	153.30
65.0°	146.10	142.80	139.50	129.60	119.80	113.80	107.90
70.0°	110.30	103.90	97.50	84.90	72.20	68.10	64.10
75.0°	39.80	41.50	43.20	40.30	37.40	35.60	33.70
80.0°	4.80	5.00	5.20	8.10	11.00	9.90	8.70
85.0°	2.40	2.50	2.50	2.40	2.30	2.20	2.10
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	cd / klm						

