

Report of Photometry & Chromaticity for NVC Lighting Ltd. NTM50/840(110DEG) - TEMPE 52W TRUNKING BATTEN POSITION 1

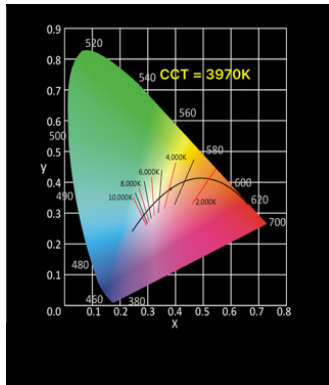
A. Product Description



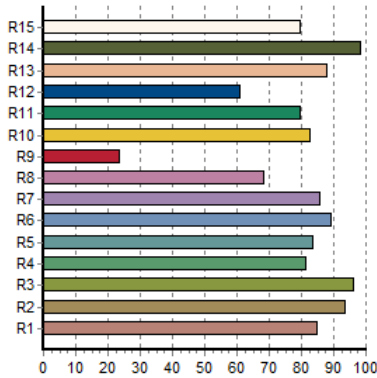
Product Name	TEMPE	Sample Number	NTM50/840(110DEG)
Date	31-05-2017		
Manufacturer	NVC Lighting Ltd.		
Tester	lightlab photometrics	Reviewer	KB
Temperature	25degC	Re. Humidity(%)	53
Spectrum Range	: 380 ~ 780 nm.		Wavelength Step : 1 nm.

C. Photometry and Chromaticity

CIE_x	0.3819	Δv	0.0002
CIE_y	0.3781	Ld(nm)	579.1
CIE_u'	0.2255	Purity(%)	28.0
CIE_v'	0.5024	FWHM(nm)	28.9
CCT(K)	3970	SP ratio	1.74
Luminaire lumens	6300	PPFD(umol/sec m ²)	
Lp(nm)	457.0		46.9
TLCI(Qa)	74.54	GAI	71.6

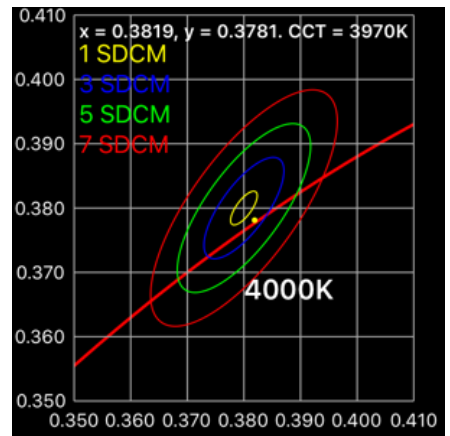
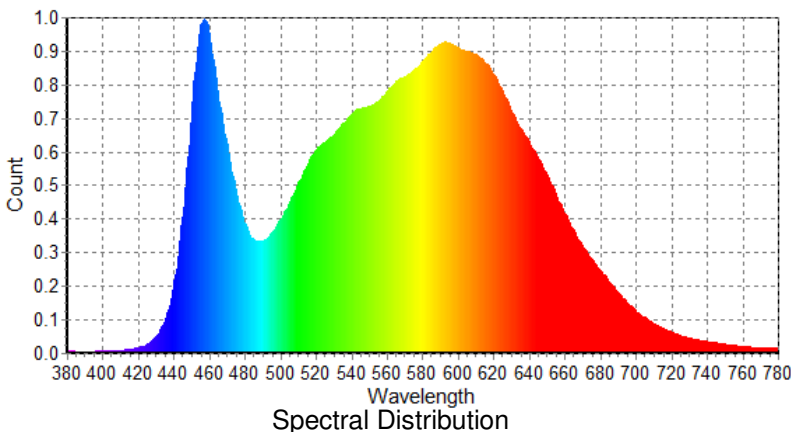


CIE1931 Chromaticity Diagram



Histogram Diagram of CRI

CRI(Ra)	86	Re(thru R1~R15)	80
Qa	84		



filename : NTM50-840(110DEG).LDT
 meas. number : 2282
 luminaire number : NTM50/840(110DEG)
 date / operator : 31-05-2017



default lamp type(s)

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	6300 lm	52.6 W

dimensions

luminaire	length	width	height	luminous area	length	width	height
	: 1035 mm	: 160 mm	: 110 mm		: 1015 mm	: 156 mm	: 0 mm

coordinate system

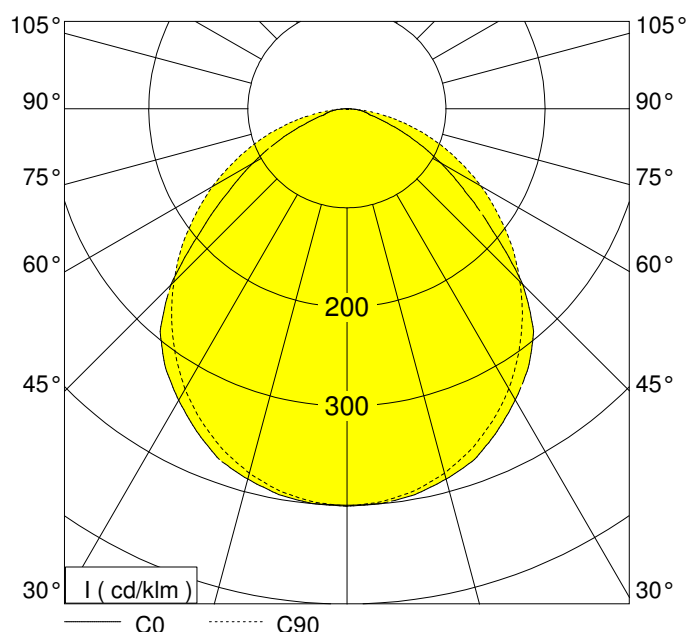
no of planes	: 7	samples / plane	: 37
first c-plane	: 0.0 °	first gamma-angle	: 0.0 °
step angle	: 15.0 °	step angle	: 5.0 °
last c-plane	: 90.0 °	last gamma-angle	: 180.0 °
symmetrics	: symmetry to C0 / C90		

performance

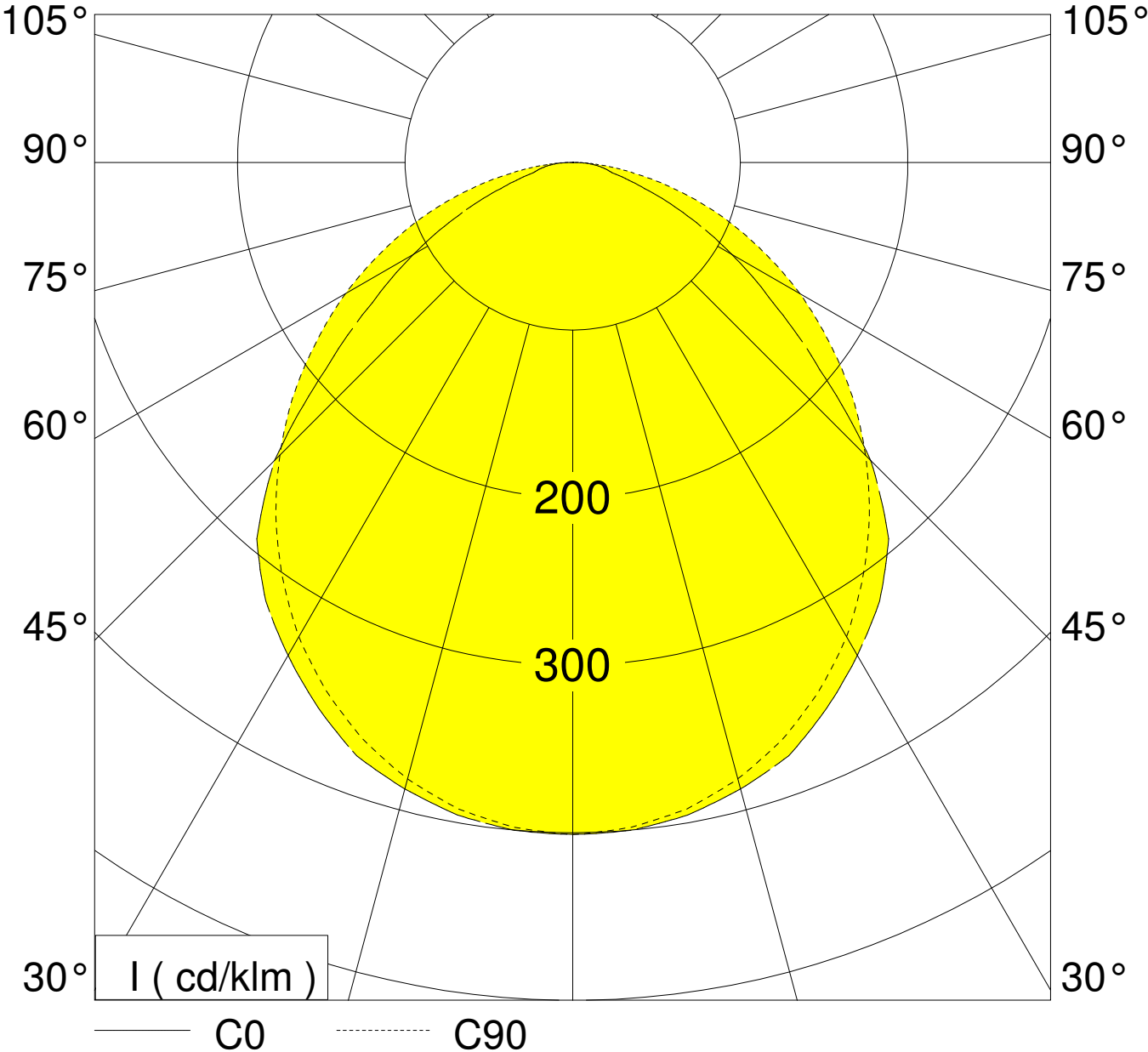
light output ratio	: 100.0 %
DFF	: 100.0 %
UFF	: 0.0 %

classification

LiTG / DIN	: A40
UTE	: 1.00D
CIE	: 53 85 97 100 100
BZ	: 3 3 3 3 3 3 3 3
Ambient Temperature	: 25 degC
Input Voltage	: 240 V
Circuit Watts	: 52.6W
Amps (running)	: 0.226A
V.A.	: 54.23VA
Power Factor	: 0.97
CCT	: 3970K (measured); 4000K (declared)
CRI (Ra)	: 86
Luminaire Lumens	: 6300 LLm
Luminaire Lm/circ.Watt	: 120 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.



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0
0.0°	401.00	401.00	401.00	401.00	401.00	401.00	401.00
5.0°	400.00	399.60	399.10	398.70	398.20	398.20	398.20
10.0°	395.40	394.50	393.60	393.10	392.60	392.20	391.70
15.0°	387.00	386.10	385.20	383.40	381.70	381.20	380.80
20.0°	376.80	375.00	373.20	370.60	367.90	367.10	366.20
25.0°	359.10	357.90	356.60	353.50	350.50	349.20	347.90
30.0°	339.70	337.60	335.40	332.80	330.30	328.50	326.80
35.0°	319.30	315.80	312.30	309.40	306.50	304.20	302.00
40.0°	293.30	290.30	287.30	282.70	278.00	276.70	275.50
45.0°	251.60	253.30	255.00	251.90	248.80	248.00	247.10
50.0°	192.60	200.90	209.20	213.20	217.10	217.60	218.10
55.0°	145.90	151.10	156.30	171.30	186.20	186.50	186.80
60.0°	109.40	112.90	116.30	133.50	150.60	153.60	156.60
65.0°	75.40	79.00	82.50	97.40	112.40	118.70	125.00
70.0°	45.70	49.10	52.60	63.50	74.50	84.90	95.20
75.0°	24.50	25.40	26.30	35.80	45.40	55.20	65.00
80.0°	18.40	18.00	17.70	19.40	21.10	29.30	37.40
85.0°	11.00	11.20	11.30	10.80	10.20	12.80	15.40
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						

glare rating according to UGR											
ρ-ceiling	70	70	50	50	30	70	70	50	50	30	
ρ-walls	50	30	50	30	30	50	30	50	30	30	
ρ-workplane	20	20	20	20	20	20	20	20	20	20	
room dimensions X Y		viewed crosswise					viewed endwise				
2H	2H	20.7	22.1	21.0	22.3	22.5	21.8	23.3	22.1	23.5	23.6
	3H	20.7	21.7	20.9	21.9	22.1	22.5	23.6	22.8	23.7	23.9
	4H	20.9	21.9	21.2	22.1	22.3	23.1	24.1	23.4	24.3	24.5
	6H	21.1	22.0	21.3	22.3	22.5	23.5	24.5	23.8	24.7	24.9
	8H	21.2	22.1	21.5	22.4	22.6	23.7	24.7	24.0	24.9	25.1
	12H	21.3	22.3	21.6	22.5	22.8	23.8	24.8	24.1	25.0	25.3
4H	2H	20.7	21.7	20.9	21.9	22.1	21.6	22.6	21.9	22.8	23.0
	3H	21.6	22.6	21.9	22.8	23.1	23.3	24.2	23.6	24.5	24.7
	4H	22.0	22.9	22.3	23.2	23.5	24.0	25.0	24.4	25.2	25.5
	6H	22.0	22.8	22.3	23.1	23.4	24.3	25.1	24.7	25.4	25.7
	8H	22.1	22.9	22.5	23.2	23.5	24.5	25.3	24.9	25.6	25.9
	12H	22.4	23.1	22.9	23.5	23.9	24.9	25.6	25.3	25.9	26.3
8H	4H	22.0	22.8	22.4	23.1	23.4	24.0	24.7	24.3	25.0	25.4
	6H	22.6	23.3	23.1	23.7	24.1	24.8	25.5	25.2	25.9	26.3
	8H	22.9	23.5	23.4	24.0	24.5	25.1	25.8	25.6	26.2	26.7
	12H	23.0	23.5	23.5	24.0	24.5	25.2	25.8	25.7	26.2	26.7
12H	4H	22.2	22.9	22.7	23.3	23.7	24.1	24.8	24.6	25.2	25.6
	6H	22.8	23.4	23.2	23.9	24.3	24.9	25.6	25.4	26.0	26.5
	8H	22.9	23.4	23.4	23.9	24.4	25.1	25.6	25.6	26.1	26.6
variation of observer position											
S =	1.0H	+0.3/		-0.4		+0.1/		-0.2			
	1.5H	+0.6/		-1.0		+0.3/		-0.4			
	2.0H	+1.1/		-1.7		+0.6/		-0.8			
standard-table	BK03					BK05					
correction for luminaire	4.9					7.8					
correct glare indices for a total flux of 6300lm											

class		glare rating for service value of illuminance (lx)									
A	A	1000	750	500	--	≤ 300					
1	B	2000	1500	1000	750	500	≤ 300				
2	D					2000	1000	500	≤ 300		
3	E						2000	1000	500	≤ 300	

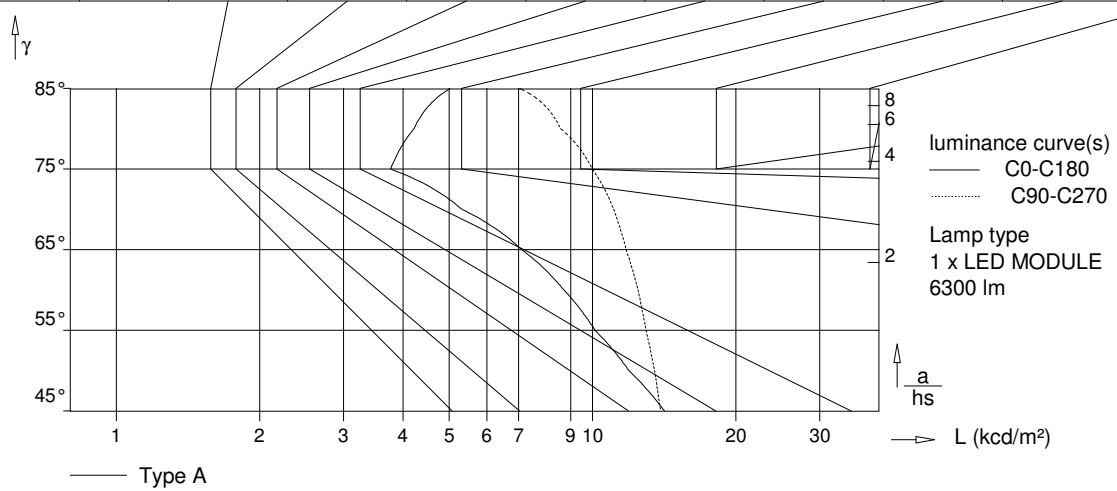


Table of intensities

gamma	C 0	C 90	C 180	C 270
45°	14157.1	13903.9	14157.1	13903.9
50°	11921.7	13500.1	11921.7	13500.1
55°	10120.8	12957.9	10120.8	12957.9
60°	8705.6	12461.5	8705.6	12461.5
65°	7098.6	11768.2	7098.6	11768.2
70°	5316.4	11074.8	5316.4	11074.8
75°	3766.3	9992.3	3766.3	9992.3
80°	4216.0	8569.4	4216.0	8569.4
85°	5021.7	7030.3	5021.7	7030.3

all values in cd/m²

utilization factors / TM5											
reflection			room index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	20	64	73	80	85	91	96	99	103	105
70	30	20	57	66	73	79	86	91	94	99	102
70	10	20	52	61	68	74	81	87	91	96	99
50	50	20	63	71	78	82	88	92	95	99	101
50	30	20	57	65	72	77	84	88	91	96	98
50	10	20	52	60	67	73	80	85	88	93	96
30	50	20	62	69	75	80	85	89	92	95	97
30	30	20	56	64	71	75	82	86	89	93	95
30	10	20	52	59	67	72	78	83	86	91	93
0	0	0	50	57	64	69	75	79	82	86	89
BZ-class			3	3	3	3	3	3	3	3	3
SHRnom : 1.50						SHRmax : 1.602					

