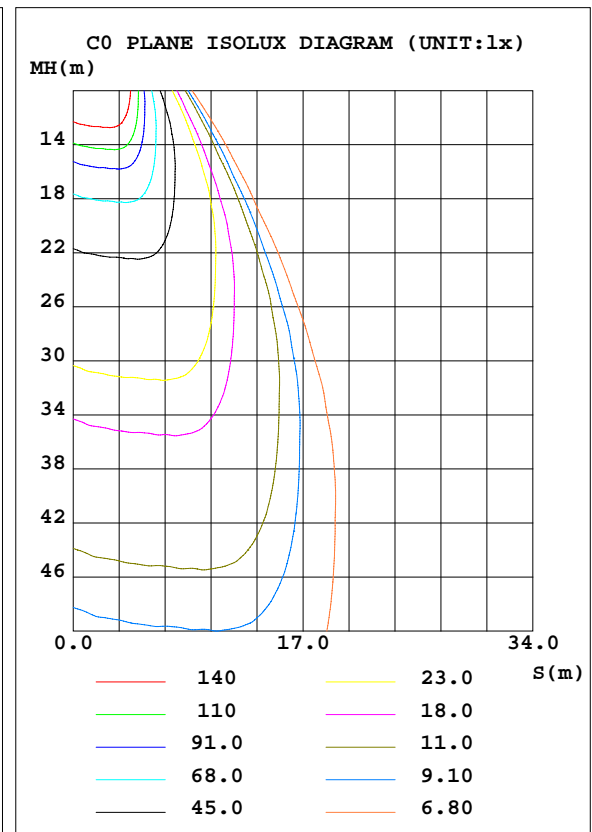
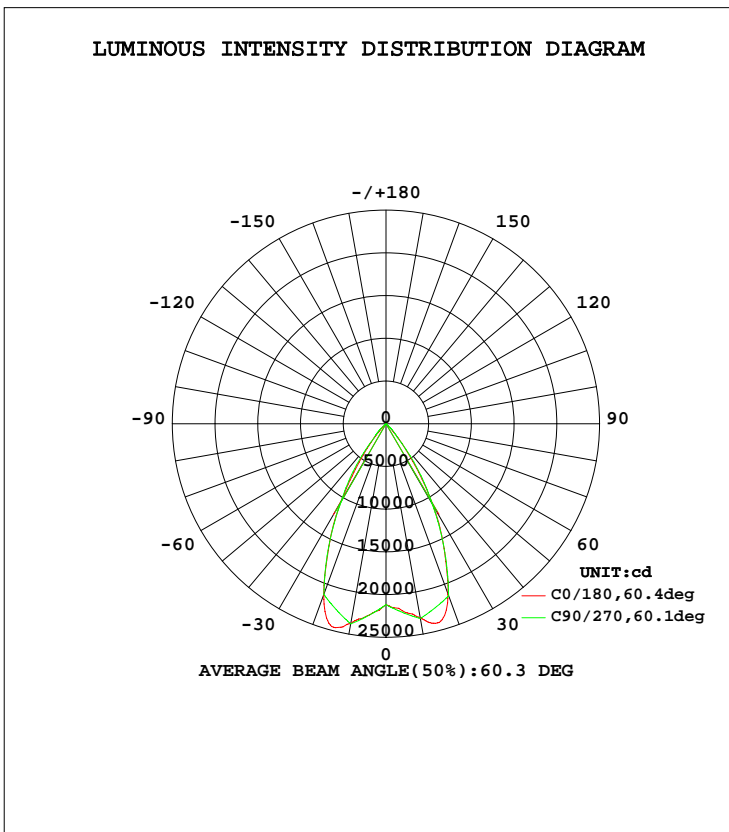


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:219.6V I:0.9380A P:200.5W PF:0.9730 Lamp Flux:20342.6x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:6
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 101.46 lm/W			
MODEL	QH-HBGK-200W	I _{max} (cd)	25094	S/MH(C0/180)	0.88
NOMINAL POWER(W)	202	LOR(%)	100.0	S/MH(C90/270)	0.89
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	20343	η UP, DN(C0-180)	0.0, 50.0
NOMINAL FLUX(lm)	20342.6	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 50.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	219.6	η down(%)	100.0	CIBSE SHR MAX	0.85



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2014-03-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: LED:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum
5	2247	2282	2248	2239	2197	2223	2216	2250	0- 5	526.7	526.7	2.59
10	2373	2425	2379	2348	2310	2341	2315	2357	5- 10	1650	2177	10.7
15	2458	2456	2253	2371	2408	2390	2229	2382	10- 15	2810	4987	24.5
20	2131	2078	2126	2029	2124	2058	2144	2051	15- 20	3668	8655	42.5
25	1578	1575	1587	1577	1610	1607	1612	1581	20- 25	3841	12495	61.4
30	1069	1048	1048	1082	1100	1087	1081	1065	25- 30	3326	15822	77.8
35	550.6	569.2	638.4	603.7	586.6	585.3	643.0	580.2	30- 35	2380	18202	89.5
40	221.9	235.3	228.5	255.5	242.3	231.6	204.8	225.1	35- 40	1334	19536	96
45	41.37	87.16	121.3	95.31	48.33	82.57	109.7	80.78	40- 45	521.9	20058	98.6
50	14.63	13.84	14.06	15.11	14.72	14.47	14.49	15.48	45- 50	156.8	20215	99.4
55	8.192	8.427	9.305	9.214	8.288	8.853	9.633	9.542	50- 55	52.61	20267	99.6
60	4.769	4.634	4.552	5.092	4.886	4.870	4.778	5.293	55- 60	31.07	20298	99.8
65	2.821	2.904	3.134	3.178	2.970	3.074	3.266	3.297	60- 65	18.89	20317	99.9
70	1.705	1.728	1.717	1.901	1.808	1.832	1.754	1.930	65- 70	12.07	20329	99.9
75	0.9731	0.9759	1.147	1.068	1.024	1.006	1.098	1.029	70- 75	7.285	20337	100
80	0.4665	0.5568	0.5762	0.6296	0.4875	0.5169	0.4408	0.5203	75- 80	4.097	20341	100
85	0.1720	0.1408	0	0.1699	0.1753	0.1102	0	0.1077	80- 85	1.682	20342	100
90	0.0420	0	0	0	0.0344	0	0	0	85- 90	0.1733	20343	100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:×10cd								UNIT:lm			

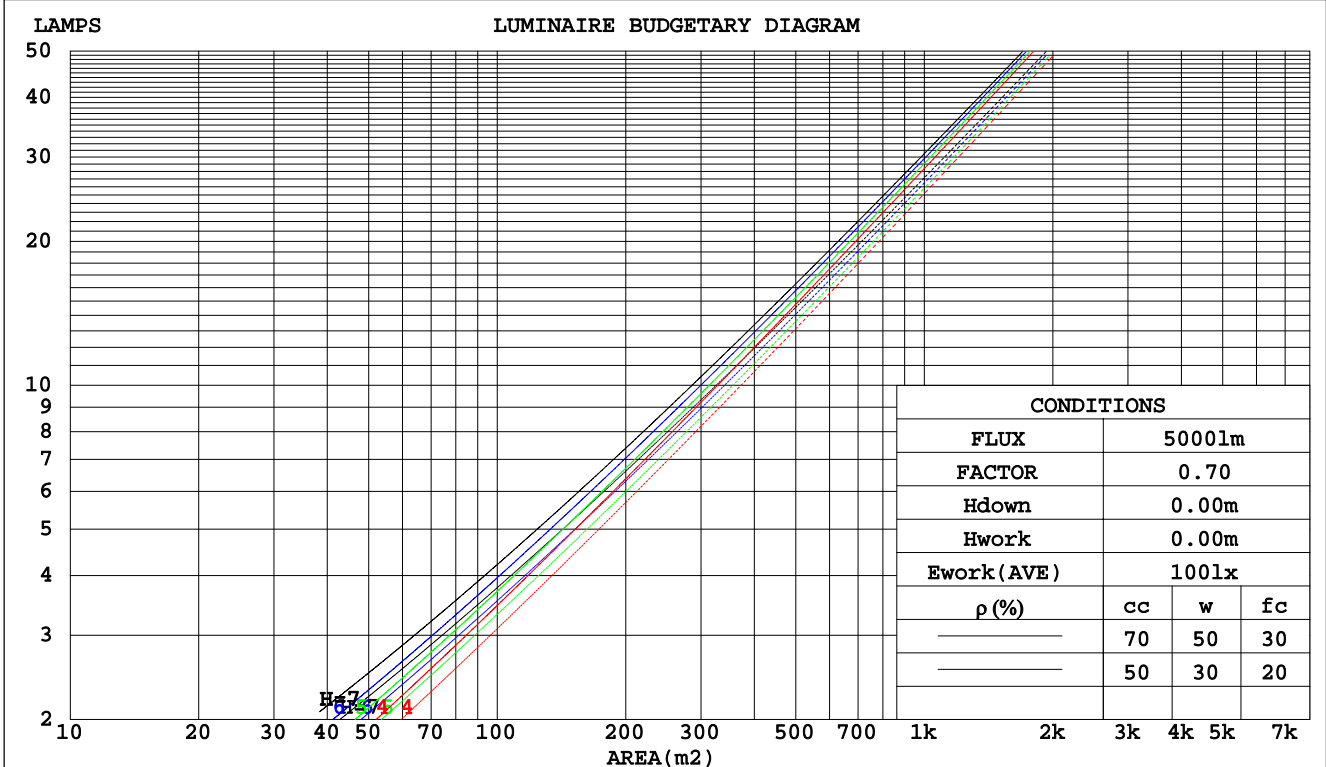
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2014-03-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: LED:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:219.6V I:0.9380A P:200.5W PF:0.9730 Lamp Flux:20342.6x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:6
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	.00	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.93	.91	.90	.88
3.0	.97	.92	.89	.96	.91	.88	.93	.90	.87	.91	.88	.85	.89	.86	.84	.82
4.0	.91	.86	.82	.90	.85	.81	.88	.84	.80	.86	.82	.80	.84	.81	.79	.77
5.0	.86	.80	.76	.85	.80	.76	.83	.79	.75	.81	.78	.74	.80	.77	.74	.72
6.0	.81	.75	.71	.80	.75	.71	.79	.74	.70	.77	.73	.70	.76	.72	.69	.68
7.0	.76	.70	.66	.76	.70	.66	.74	.69	.66	.73	.69	.66	.72	.68	.65	.64
8.0	.72	.66	.62	.71	.66	.62	.70	.66	.62	.69	.65	.62	.68	.64	.61	.60
9.0	.68	.63	.59	.68	.62	.59	.67	.62	.58	.66	.61	.58	.65	.61	.58	.57
10.0	.65	.59	.55	.64	.59	.55	.63	.59	.55	.63	.58	.55	.62	.58	.55	.54

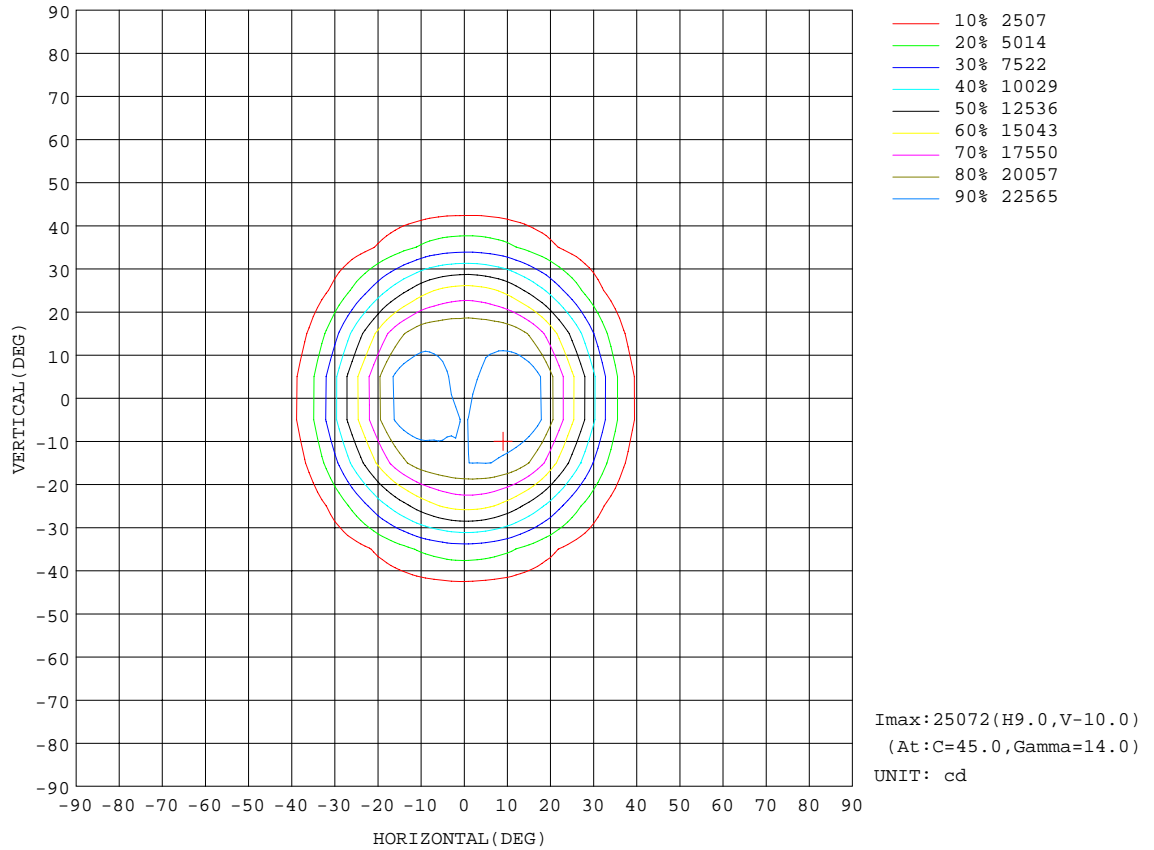


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2014-03-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: LED:

ISOCANDELA DIAGRAM

Test:U:219.6V I:0.9380A P:200.5W PF:0.9730 Lamp Flux:20342.6x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:6
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

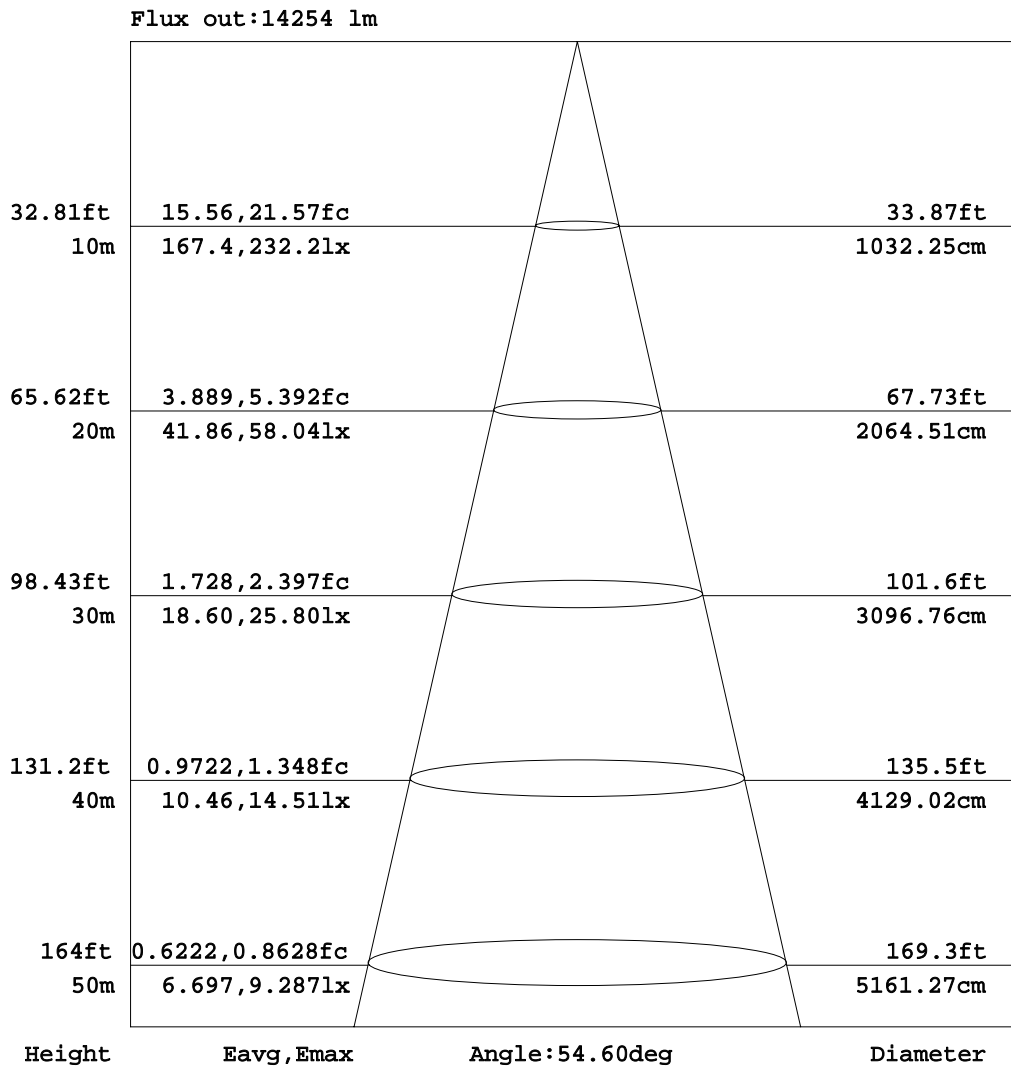


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2014-03-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.279
 Humidity: 65.0%
 Test Distance: 8.000m [K=1.0000]
 Remarks: LED:

AAI Figure

Test:U:219.6V I:0.9380A P:200.5W PF:0.9730 Lamp Flux:20342.6x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:6
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:



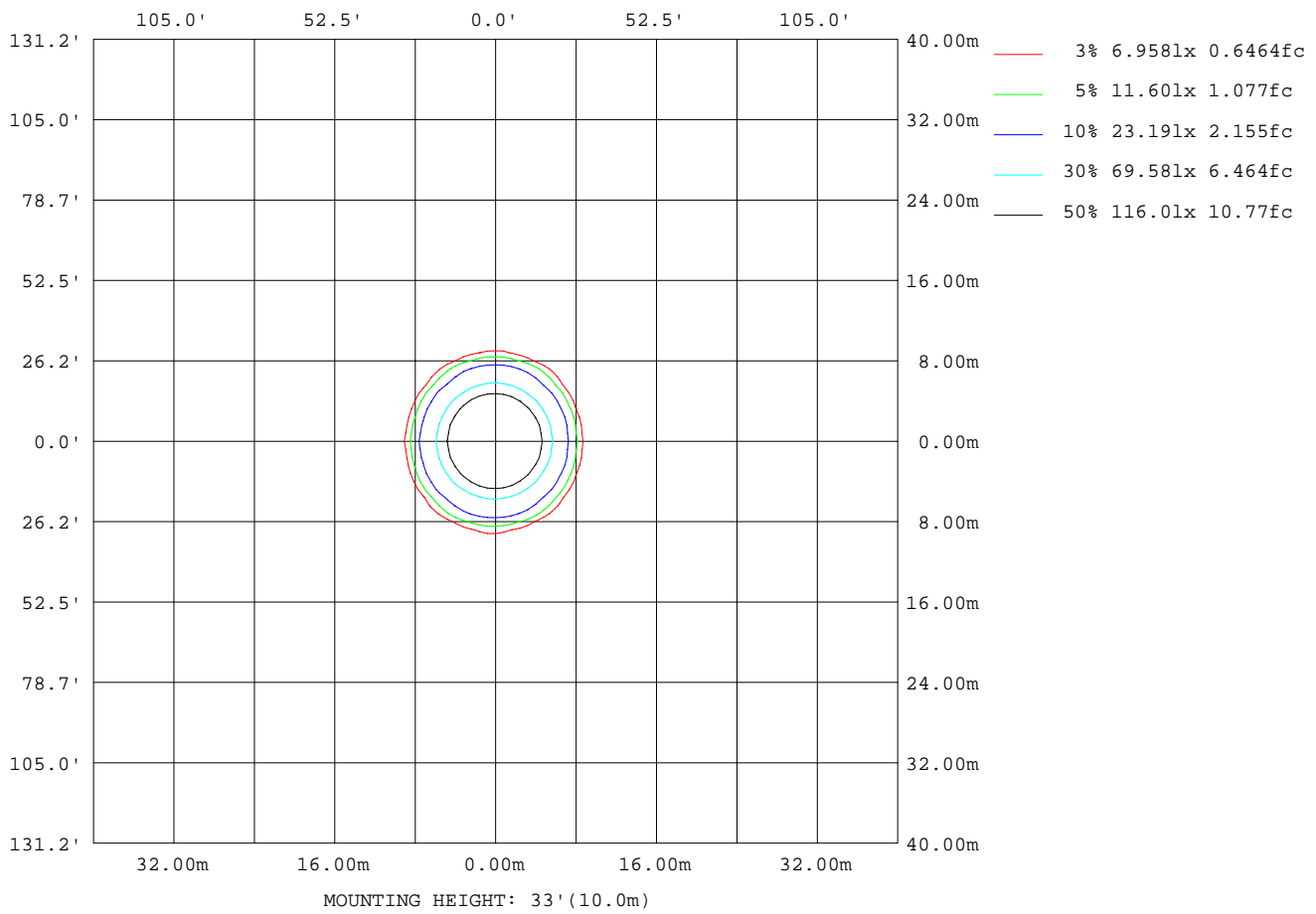
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2014-03-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: LED:

ISOLUX DIAGRAM

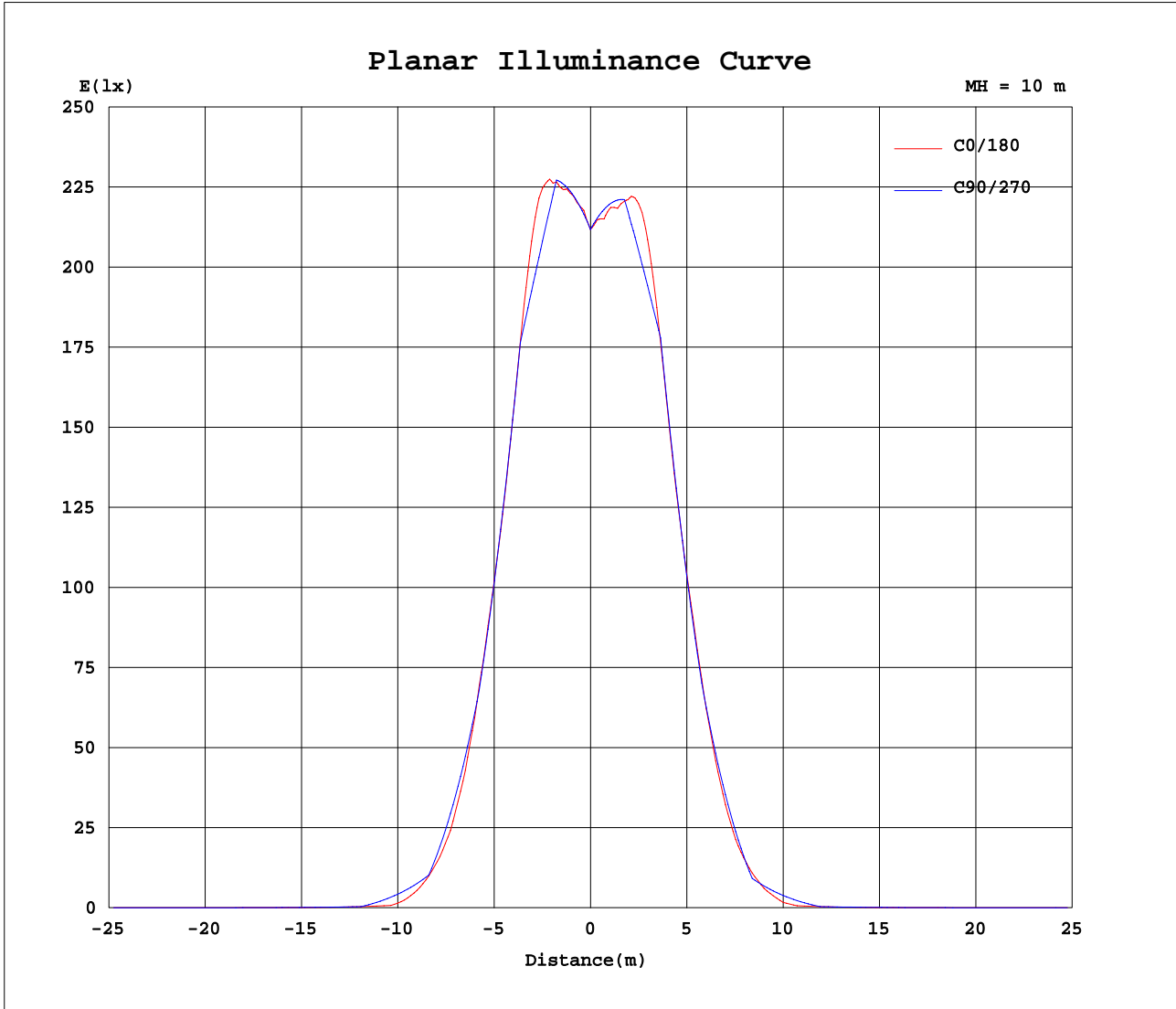
Test:U:219.6V I:0.9380A P:200.5W PF:0.9730 Lamp Flux:20342.6x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:6
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2014-03-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: LED:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2014-03-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.279
 Humidity: 65.0%
 Test Distance: 8.000m [K=1.0000]
 Remarks: LED:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:219.6V I:0.9380A P:200.5W PF:0.9730 Lamp Flux:20342.6x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:6
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: x10cd

C(DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117
5	2247	2255	2262	2268	2273	2277	2279	2281	2282	2282	2281	2281	2282	2282	2278	2271	2264	2257	2248
10	2373	2383	2392	2399	2404	2408	2414	2419	2423	2425	2428	2429	2424	2413	2400	2395	2396	2390	2379
15	2458	2443	2432	2426	2430	2436	2451	2472	2491	2456	2410	2368	2334	2312	2294	2277	2264	2261	2253
20	2131	2096	2078	2077	2092	2122	2155	2123	2096	2078	2055	2044	2042	2051	2071	2092	2113	2122	2126
25	1578	1549	1540	1548	1578	1579	1560	1560	1573	1575	1578	1578	1575	1578	1581	1586	1589	1588	1587
30	1069	1033	1022	1041	1057	1027	1022	1024	1049	1048	1052	1038	1038	1038	1044	1042	1044	1047	1048
35	551	531	535	558	546	542	542	562	566	569	560	549	570	597	616	625	631	634	638
40	222	214	217	221	221	222	234	237	237	235	249	260	271	271	260	252	233	225	228
45	41.4	41.0	43.3	46.7	40.9	55.9	59.2	45.9	69.0	87.2	78.3	53.0	55.8	79.7	96.5	107	112	117	121
50	14.6	14.4	14.6	14.3	14.3	14.4	14.3	14.6	17.6	13.8	14.6	14.9	23.3	30.5	30.9	26.8	20.9	15.9	14.1
55	8.19	8.13	8.10	7.99	8.02	7.95	8.16	7.82	8.12	8.43	8.40	7.93	8.03	8.36	8.65	8.91	9.05	9.20	9.30
60	4.77	4.75	4.65	4.64	4.65	4.63	4.57	4.74	4.68	4.63	4.82	4.94	5.02	5.00	4.88	4.78	4.64	4.55	4.55
65	2.82	2.84	2.79	2.77	2.78	2.76	2.79	2.77	2.85	2.90	2.88	2.77	2.85	2.90	2.94	3.01	3.06	3.10	3.13
70	1.71	1.70	1.68	1.66	1.65	1.65	1.69	1.69	1.66	1.73	1.78	1.80	1.80	1.78	1.76	1.74	1.72	1.71	1.72
75	0.97	0.95	0.94	0.92	0.93	0.94	0.95	0.98	0.98	0.98	0.99	1.02	1.05	1.07	1.09	1.11	1.12	1.13	1.15
80	0.47	0.46	0.45	0.46	0.48	0.49	0.49	0.52	0.54	0.56	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.58
85	0.17	0.15	0.18	0.23	0.21	0.22	0.24	0.20	0.17	0.14	0.11	0.09	0.07	0.05	0.03	0.02	0.01	0.00	0.00
90	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2014-03-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: LED:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:219.6V I:0.9380A P:200.5W PF:0.9730 Lamp Flux:20342.6x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:6
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: x10cd

C(DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117	2117
5	2248	2248	2250	2253	2254	2251	2248	2243	2239	2233	2229	2227	2224	2220	2216	2211	2204	2197	2203
10	2369	2371	2369	2363	2358	2354	2354	2352	2348	2343	2339	2338	2336	2333	2329	2324	2318	2310	2319
15	2249	2249	2244	2243	2254	2268	2293	2328	2371	2400	2380	2367	2359	2359	2363	2374	2390	2408	2395
20	2121	2103	2072	2049	2024	2011	2009	2014	2029	2049	2074	2099	2077	2061	2055	2062	2086	2124	2091
25	1585	1582	1580	1576	1574	1575	1580	1588	1577	1572	1567	1564	1578	1579	1558	1558	1575	1610	1577
30	1045	1046	1047	1050	1050	1049	1059	1070	1082	1083	1062	1059	1060	1075	1066	1052	1063	1100	1062
35	639	635	633	630	608	594	570	590	604	611	603	585	582	579	583	563	562	587	557
40	236	242	260	274	283	286	282	271	256	254	258	256	245	241	242	236	231	242	229
45	123	118	114	102	87.0	68.3	62.8	84.9	95.3	76.1	49.3	65.2	66.3	51.3	51.8	45.4	44.3	48.3	42.5
50	16.3	21.8	28.7	33.4	33.3	26.7	16.1	15.8	15.1	19.3	15.3	14.9	14.8	14.8	14.6	14.5	14.4	14.7	14.4
55	9.38	9.40	9.43	9.28	9.10	8.81	8.73	9.19	9.21	8.88	8.57	8.65	8.34	8.33	8.30	8.13	8.10	8.29	8.14
60	4.64	4.83	5.07	5.27	5.45	5.53	5.48	5.30	5.09	5.11	5.16	5.01	4.92	4.86	4.88	4.81	4.81	4.89	4.84
65	3.16	3.19	3.21	3.18	3.17	3.13	3.05	3.16	3.18	3.10	3.00	3.01	2.98	2.94	2.90	2.94	2.92	2.97	2.94
70	1.74	1.79	1.85	1.90	1.95	1.98	1.98	1.95	1.90	1.84	1.86	1.83	1.79	1.79	1.78	1.78	1.78	1.81	1.79
75	1.16	1.17	1.17	1.18	1.17	1.15	1.13	1.08	1.07	1.08	1.07	1.05	1.03	1.01	1.00	1.00	1.01	1.02	1.01
80	0.58	0.59	0.60	0.61	0.63	0.64	0.65	0.64	0.63	0.60	0.57	0.52	0.52	0.50	0.48	0.47	0.47	0.49	0.47
85	0.00	0.01	0.02	0.03	0.05	0.08	0.10	0.14	0.17	0.21	0.25	0.29	0.27	0.25	0.22	0.18	0.16	0.18	0.15
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2014-03-01

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: LED:

