

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity	842.9 cd per klm.
(Luminaire orientation as tested.)	0.0 degrees vertical
	0.0 degrees horizontal

Beam Spread	At 10% of Imax	135.0V x 135.4H
	At 50% of Imax	51.0V x 50.0H
	At 90% of Imax	10.5V x 10.7H

Beam Flux	Total	1142.8 lumens per klm.
	To 10% of Imax	1107.4 lumens per klm.
	To 50% of Imax	323.3 lumens per klm.
	To 90% of Imax	19.2 lumens per klm.

Upward LOR	0.0 %
Downward LOR	114.3 %

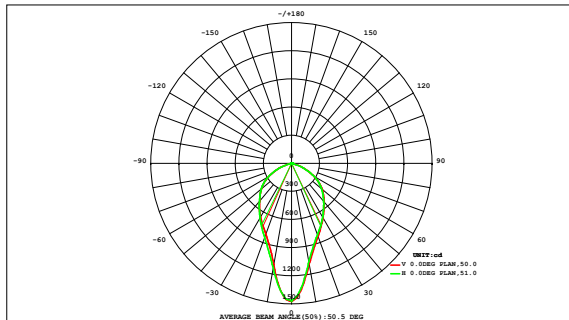
Luminaire Efficiency (Light Output Ratio)	114.2 %
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C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators:
Test Date: 23 January 2023

γ Range: 0 - 90DEG
γ Interval: 2.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity: 65.0%
Test Distance: 6.340m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: 96RAY20/WW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle	Shielding Angle:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	96RAY20/WW	Imax (cd)	1475
NOMINAL POWER (W)	20	AVAILABILITY (%)	110.8
RATED VOLTAGE (V)	230	Avai. FLUX (lm)	1938
NOMINAL FLUX (lm)	1750	LOR (%)	114.2
LAMPS INSIDE	1	TOTAL FLUX (lm)	1999
TEST VOLTAGE (V)	230	θ @50% (H,V)	50,51DEG

VERTICAL (DEG)	AREA FLUX DIAGRAM																UNIT:lm		Φ t	Φ a
	0.00	0.01	0.01	0.02	0.04	0.05	0.07	0.08	0.08	0.08	0.08	0.07	0.06	0.04	0.03	0.01	0.01	0.00	0.73	0.00
90	0.00	0.01	0.03	0.07	0.12	0.19	0.34	0.58	0.75	0.75	0.59	0.36	0.23	0.15	0.09	0.04	0.01	0.00	4.34	0.00
80	0.00	0.02	0.07	0.18	0.97	2.51	4.17	5.34	5.91	5.91	5.36	4.21	2.61	1.08	0.24	0.09	0.03	0.00	38.7	26.7
70	0.00	0.03	0.13	1.38	3.80	6.23	8.30	9.77	10.7	10.7	9.80	8.21	6.11	3.79	1.47	0.18	0.05	0.01	80.7	76.4
60	0.01	0.05	0.61	3.09	6.06	9.08	11.5	13.3	14.3	14.4	13.4	11.4	8.90	5.95	3.08	0.68	0.06	0.01	116	113
50	0.01	0.06	1.33	4.29	7.79	11.0	14.0	16.5	18.1	18.1	16.7	14.1	11.0	7.64	4.26	1.39	0.08	0.01	146	145
40	0.01	0.09	1.89	5.24	9.01	12.6	16.6	20.3	22.7	22.6	20.3	16.7	12.7	8.87	5.15	1.96	0.12	0.01	177	175
30	0.01	0.15	2.28	5.88	9.86	14.1	19.0	24.5	28.8	28.2	23.8	18.8	14.0	9.71	5.75	2.34	0.18	0.01	207	206
20	0.01	0.20	2.49	6.20	10.3	14.9	20.5	27.4	37.2	37.3	26.6	20.0	14.8	10.1	6.12	2.54	0.22	0.01	237	236
10	0.01	0.20	2.51	6.16	10.4	14.9	20.3	26.5	35.6	36.4	26.2	19.9	14.8	10.2	6.16	2.55	0.22	0.01	233	232
0	0.01	0.16	2.34	5.77	9.86	14.1	18.8	23.3	27.0	27.0	23.0	18.6	14.0	9.77	5.85	2.36	0.17	0.01	202	201
-10	0.01	0.09	1.96	5.19	8.96	12.7	16.5	19.9	22.0	22.0	19.9	16.5	12.6	8.92	5.22	1.97	0.10	0.01	175	173
-20	0.01	0.07	1.32	4.32	7.75	11.1	14.0	16.5	18.0	18.0	16.5	14.1	11.0	7.65	4.32	1.37	0.07	0.01	146	144
-30	0.01	0.05	0.59	2.99	5.87	8.84	11.4	13.3	14.3	14.3	13.3	11.4	8.85	5.96	3.15	0.64	0.05	0.01	115	113
-40	0.00	0.04	0.15	1.34	3.63	5.90	8.00	9.63	10.5	10.6	9.67	8.08	6.07	3.83	1.44	0.14	0.04	0.00	79.0	74.9
-50	0.00	0.03	0.09	0.21	0.97	2.40	3.85	4.97	5.58	5.59	4.99	3.90	2.41	0.94	0.18	0.07	0.02	0.00	36.2	22.4
-60	0.00	0.02	0.05	0.09	0.16	0.24	0.35	0.54	0.69	0.68	0.53	0.32	0.20	0.12	0.07	0.04	0.01	0.00	4.11	0.00
-70	0.00	0.01	0.02	0.03	0.04	0.06	0.07	0.08	0.08	0.08	0.07	0.06	0.05	0.04	0.02	0.01	0.01	0.00	0.75	0.00
-80	0.00	0.01	0.02	0.03	0.04	0.06	0.07	0.08	0.08	0.08	0.07	0.06	0.05	0.04	0.02	0.01	0.01	0.00	0.75	0.00
-90	0.00	0.01	0.02	0.03	0.04	0.06	0.07	0.08	0.08	0.08	0.07	0.06	0.05	0.04	0.02	0.01	0.01	0.00	0.75	0.00
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)	20	30	40	50	60	70	80	90			
Φ t	0.10	1.29	17.9	52.5	95.6	141	188	233	272	273	231	187	140	94.8	52.6	18.4	1.45	0.11	1999	---
Φ a	0.00	0.00	11.6	48.3	91.7	137	184	229	269	269	227	183	137	91.1	48.5	12.0	0.00	0.00	---	1938

one-half-peak spread: U:25.5,D:26.5 , L:26.0,R:25.0

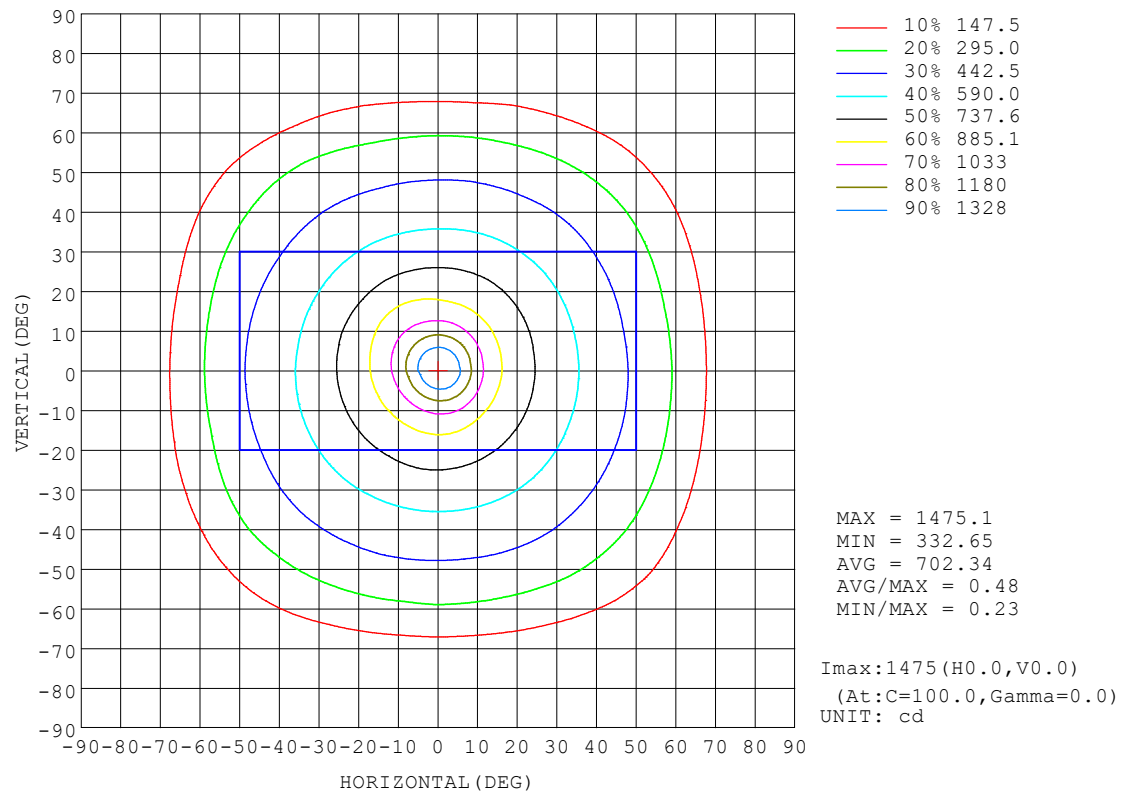
NEMA Beam Type: Type 7

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:
Test Date:23 January 2023

γ Range: 0 - 90DEG
γ Interval: 2.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity:65.0%
Test Distance:6.340m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: 96RAY20/WW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle	Shielding Angle:

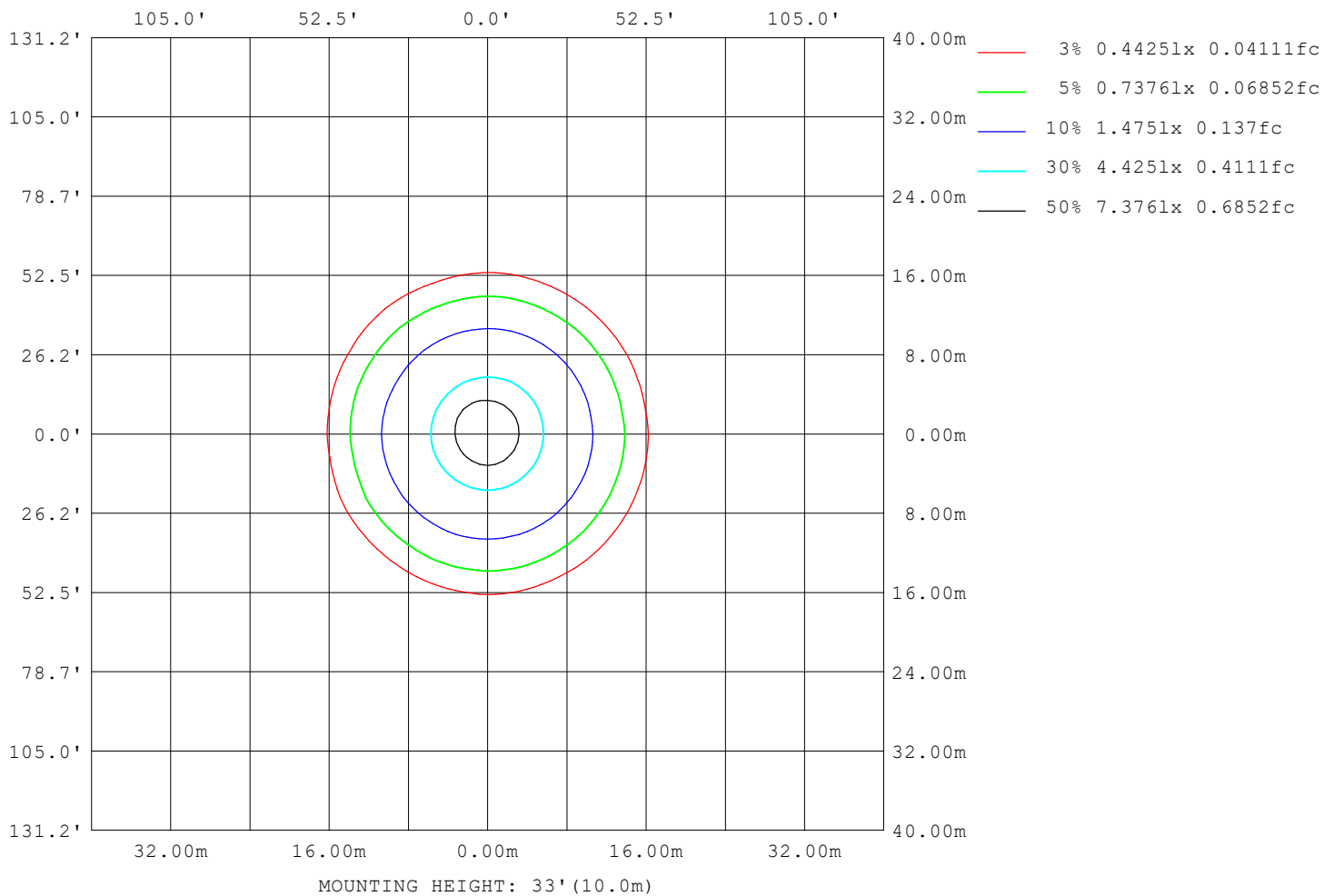


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Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
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Test Distance: 6.340m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

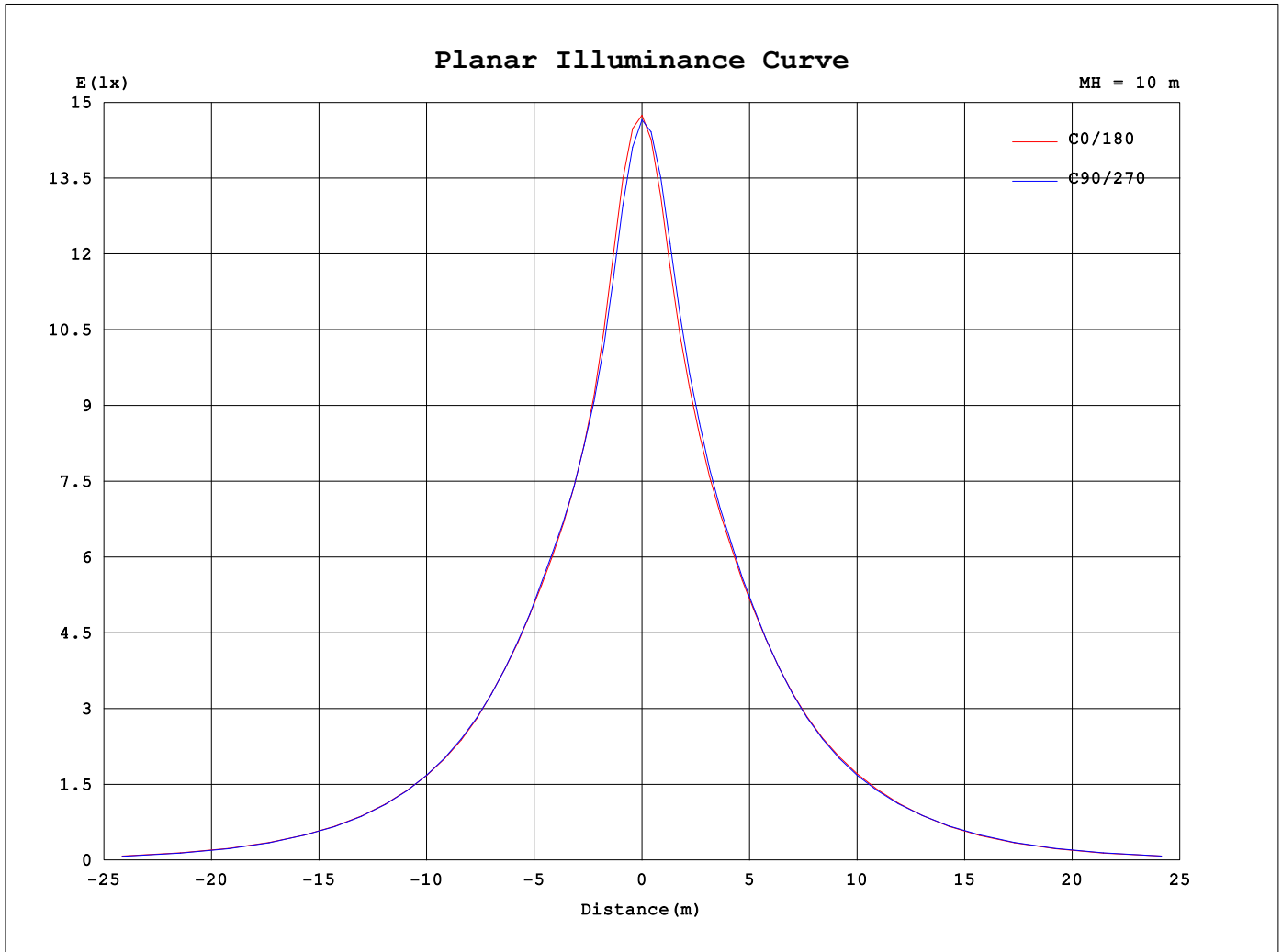
NAME: 96RAY20/WW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle	Shielding Angle:



C Range: 0 - 360DEG
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Test Speed: MEDIUM
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Operators:
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Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
Humidity: 65.0%
Test Distance: 6.340m [K=1.0000]
Remarks:

Planar Illuminance Curve

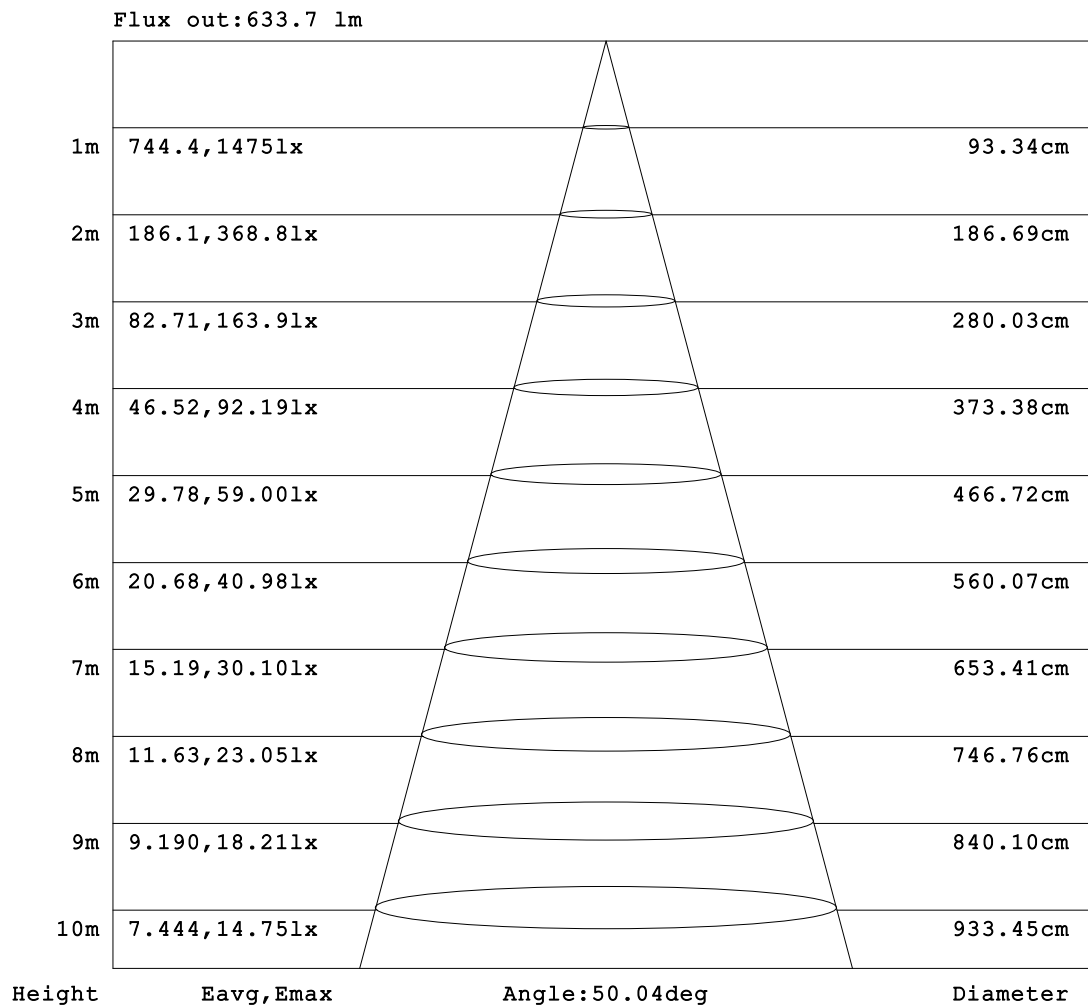


C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
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 Operators:
 Test Date: 23 January 2023

γ Range: 0 - 90DEG
 γ Interval: 2.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.456
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 Test Distance: 6.340m [K=1.0000]
 Remarks:

AAI Figure

NAME: 96RAY20/WW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle	Shielding 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: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3°C
 Operators:
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γ Range: 0 - 90DEG
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LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 96RAY20/WW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle	Shielding Angle:

Table--1

UNIT: cd

H (DEG) V (DEG)	-90	-85	-80	-75	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
-90	0.63	0.68	0.72	0.72	0.72	0.72	0.71	0.71	0.71	0.71	0.71	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
-85	0.63	0.77	0.92	1.03	1.12	1.21	1.28	1.47	1.66	1.82	1.96	2.09	2.22	2.29	2.34	2.36	2.35	2.34	2.31
-80	0.63	0.86	1.13	1.35	1.77	2.18	2.60	3.15	3.70	4.16	4.60	5.09	5.54	5.81	5.99	6.06	6.06	6.05	5.98
-75	0.63	0.95	1.34	1.97	2.61	3.44	4.29	5.29	6.30	7.26	8.18	9.09	10.0	10.7	11.0	11.3	11.4	11.5	11.5
-70	0.63	1.04	1.73	2.58	3.67	4.90	6.25	7.81	9.46	11.2	13.1	16.9	20.4	23.3	26.5	31.4	35.7	40.4	45.4
-65	0.63	1.12	2.10	3.33	4.80	6.49	8.45	10.7	14.9	20.7	28.3	37.6	48.6	61.3	75.7	91.8	109.6	129.1	150.4
-60	0.63	1.20	2.44	4.05	5.95	8.23	10.9	17.6	26.0	36.3	49.6	65.9	85.2	107.5	132.8	161.1	192.4	226.7	274.0
-55	0.63	1.36	2.86	4.84	7.22	10.1	17.2	27.1	40.1	56.4	76.9	101.6	130.5	163.6	200.9	242.4	288.1	338.0	392.1
-50	0.63	1.50	3.25	5.59	8.45	13.7	21.5	33.0	49.6	71.2	98.9	131.6	169.3	212.0	259.7	312.4	370.1	432.8	500.5
-45	0.63	1.63	3.60	6.34	9.80	19.2	31.5	48.0	72.4	104.7	147.0	199.3	261.6	334.9	419.2	514.5	620.8	739.1	870.4
-40	0.63	1.74	3.93	7.06	11.5	21.6	36.0	54.0	80.4	116.3	171.6	237.3	314.4	402.9	502.8	614.1	736.8	871.9	1020.4
-35	0.63	1.84	4.25	7.63	15.3	27.1	45.6	67.6	98.0	140.7	205.6	282.7	372.0	473.5	587.2	713.1	851.2	1001.4	1164.7
-30	0.63	1.93	4.51	8.18	18.8	32.0	54.0	80.4	116.3	171.6	237.3	314.4	402.9	502.8	614.1	736.8	871.9	1020.4	1184.7
-25	0.63	2.00	4.72	8.67	20.0	35.1	60.0	88.0	126.0	186.0	261.0	351.0	456.0	576.0	711.0	861.0	1026.0	1206.0	1391.0
-20	0.63	2.05	4.88	9.02	24.9	42.6	72.0	108.0	162.0	237.0	336.0	456.0	596.0	756.0	936.0	1136.0	1356.0	1596.0	1856.0
-15	0.63	2.09	4.98	9.25	28.3	48.0	81.0	126.0	186.0	271.0	386.0	526.0	691.0	881.0	1096.0	1336.0	1601.0	1891.0	2206.0
-10	0.63	2.11	5.02	9.35	31.1	52.0	88.0	136.0	206.0	301.0	426.0	581.0	766.0	981.0	1226.0	1491.0	1781.0	2096.0	2436.0
-5	0.63	2.12	5.02	9.33	33.6	56.0	96.0	146.0	216.0	321.0	446.0	601.0	786.0	1001.0	1246.0	1511.0	1796.0	2106.0	2446.0
0	0.63	2.11	4.96	9.19	35.9	60.0	102.0	152.0	222.0	327.0	452.0	607.0	792.0	1007.0	1252.0	1517.0	1792.0	2102.0	2442.0
5	0.63	2.11	4.96	9.20	38.0	64.0	108.0	158.0	232.0	337.0	462.0	617.0	802.0	1017.0	1262.0	1527.0	1802.0	2112.0	2452.0
10	0.63	2.08	4.91	9.09	40.0	68.0	114.0	164.0	238.0	343.0	468.0	623.0	808.0	1023.0	1268.0	1533.0	1808.0	2118.0	2458.0
15	0.63	2.05	4.81	8.86	42.0	72.0	120.0	170.0	242.0	347.0	472.0	627.0	812.0	1027.0	1272.0	1537.0	1812.0	2122.0	2462.0
20	0.63	2.00	4.66	8.52	44.0	76.0	126.0	176.0	246.0	351.0	476.0	631.0	816.0	1031.0	1276.0	1541.0	1816.0	2126.0	2466.0
25	0.63	1.93	4.47	8.06	46.0	80.0	132.0	182.0	250.0	355.0	480.0	635.0	820.0	1035.0	1280.0	1545.0	1820.0	2130.0	2470.0
30	0.63	1.85	4.23	7.49	48.0	84.0	138.0	188.0	254.0	359.0	484.0	639.0	824.0	1039.0	1284.0	1549.0	1824.0	2134.0	2474.0
35	0.63	1.76	3.94	6.88	50.0	88.0	144.0	194.0	260.0	363.0	488.0	643.0	828.0	1043.0	1288.0	1553.0	1828.0	2138.0	2478.0
40	0.63	1.66	3.62	6.29	52.0	92.0	150.0	200.0	266.0	367.0	492.0	647.0	832.0	1047.0	1292.0	1557.0	1832.0	2142.0	2482.0
45	0.63	1.54	3.28	5.59	54.0	96.0	156.0	206.0	270.0	371.0	496.0	651.0	836.0	1051.0	1296.0	1561.0	1836.0	2146.0	2486.0
50	0.63	1.41	2.93	4.86	56.0	100.0	162.0	212.0	274.0	375.0	500.0	655.0	840.0	1055.0	1300.0	1565.0	1840.0	2150.0	2490.0
55	0.63	1.28	2.54	4.13	58.0	104.0	168.0	218.0	278.0	379.0	504.0	659.0	844.0	1059.0	1304.0	1569.0	1844.0	2154.0	2494.0
60	0.63	1.13	2.13	3.34	60.0	108.0	174.0	224.0	282.0	383.0	508.0	663.0	848.0	1063.0	1308.0	1573.0	1848.0	2158.0	2498.0
65	0.63	1.06	1.82	2.53	62.0	112.0	180.0	230.0	286.0	387.0	512.0	667.0	852.0	1067.0	1312.0	1577.0	1852.0	2162.0	2502.0
70	0.63	0.97	1.51	1.67	64.0	116.0	186.0	236.0	290.0	391.0	516.0	671.0	856.0	1071.0	1316.0	1581.0	1856.0	2166.0	2506.0
75	0.63	0.89	1.18	1.28	66.0	120.0	192.0	242.0	294.0	395.0	520.0	675.0	860.0	1075.0	1320.0	1585.0	1860.0	2170.0	2510.0
80	0.63	0.81	0.99	0.95	68.0	124.0	198.0	248.0	298.0	399.0	524.0	679.0	864.0	1079.0	1324.0	1589.0	1864.0	2174.0	2514.0
85	0.63	0.72	0.81	0.78	70.0	128.0	204.0	254.0	302.0	403.0	528.0	683.0	868.0	1083.0	1328.0	1593.0	1868.0	2178.0	2518.0
90	0.63	0.63	0.63	0.62	72.0	132.0	210.0	260.0	306.0	407.0	532.0	687.0	872.0	1087.0	1332.0	1597.0	1872.0	2182.0	2522.0

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: MEDIUM

Temperature:25.3°C

Operators:

Test Date:23 January 2023

γ Range: 0 - 90DEG

γ Interval: 2.5DEG

Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456

Humidity:65.0%

Test Distance:6.340m [K=1.0000]

Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 96RAY20/WW	TYPE:	WEIGHT: 1
SPEC.:	DIM.: F200 x 90	SERIAL No.: 0
MFR.: Elmark Industries JSC	SUR.: circle	Shielding Angle:

Table--2

UNIT: cd

H (DEG) V (DEG)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	
-90	0.72	0.72	0.72	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.72	0.72	0.72	0.73	0.74	0.75	0.75	
-85	2.30	2.27	2.20	2.12	2.04	1.95	1.82	1.67	1.54	1.40	1.25	1.10	1.06	1.02	0.96	0.89	0.82	0.75	
-80	5.95	5.85	5.62	5.34	5.02	4.65	4.20	3.72	3.29	2.88	2.49	2.10	1.84	1.55	1.20	1.04	0.90	0.75	
-75	11.4	11.2	10.8	10.2	9.33	8.35	7.31	6.44	5.56	4.75	4.06	3.38	2.87	2.28	1.75	1.21	0.98	0.75	
-70	102	93.1	81.3	63.4	39.2	18.8	15.1	10.8	8.65	7.06	5.91	4.88	4.07	3.20	2.31	1.58	1.05	0.75	
-65	183	177	169	157	142	128	109	67.0	19.2	12.7	8.34	6.65	5.41	4.19	2.99	1.93	1.12	0.75	
-60	275	266	254	239	221	201	177	150	120	65.3	16.9	8.99	6.97	5.23	3.65	2.28	1.19	0.75	
-55	352	345	332	316	295	272	245	213	179	140	85.1	17.5	8.90	6.42	4.41	2.70	1.35	0.75	
-50	415	409	398	381	360	334	304	269	231	189	141	67.9	13.7	7.63	5.13	3.09	1.50	0.75	
-45	473	466	455	438	417	389	356	318	277	233	180	125	21.7	9.07	5.89	3.47	1.64	0.75	
-40	531	522	508	489	466	437	402	363	319	271	215	150	73.1	11.2	6.63	3.82	1.77	0.75	
-35	593	581	562	538	511	478	442	402	356	304	247	180	117	16.7	7.30	4.19	1.89	0.75	
-30	661	645	621	590	554	516	476	435	388	334	275	206	135	21.7	8.01	4.52	1.99	0.75	
-25	729	707	677	642	599	553	507	463	415	360	298	229	150	43.1	8.69	4.79	2.07	0.75	
-20	797	769	735	688	640	588	535	486	437	382	319	247	166	68.0	9.25	5.02	2.15	0.75	
-15	892	835	783	732	675	619	558	504	454	399	335	261	178	87.7	9.70	5.21	2.20	0.75	
-10	1033	930	834	765	704	643	579	518	467	411	346	271	188	102	10.0	5.34	2.24	0.75	
-5	1230	1037	886	791	723	657	593	527	473	418	353	278	193	111	10.2	5.41	2.27	0.75	
0	1365	1096	912	804	731	662	598	530	474	420	355	280	195	114	10.3	5.44	2.27	0.75	
5	1268	1059	901	800	725	657	593	527	471	416	350	276	193	111	10.6	5.55	2.28	0.75	
10	1083	964	859	780	710	644	580	518	463	406	341	268	186	102	10.8	5.61	2.27	0.75	
15	929	871	808	745	684	623	561	504	451	394	328	256	177	88.5	10.8	5.60	2.25	0.75	
20	826	796	752	703	648	592	536	485	434	378	313	241	165	69.7	10.7	5.53	2.20	0.75	
25	746	726	694	651	605	556	508	462	413	358	294	224	149	46.3	10.3	5.38	2.14	0.75	
30	671	656	630	596	557	517	477	434	386	333	271	202	134	26.1	9.82	5.15	2.06	0.75	
35	598	587	567	541	511	479	443	402	355	303	243	178	117	20.6	9.18	4.85	1.96	0.75	
40	533	524	509	489	465	437	404	365	320	270	210	150	75.7	14.3	8.55	4.48	1.84	0.75	
45	476	469	456	438	416	390	358	321	278	229	174	124	27.4	11.7	7.61	4.08	1.71	0.75	
50	420	413	399	382	360	336	306	269	228	183	137	70.9	17.5	9.76	6.58	3.63	1.57	0.75	
55	357	349	335	320	300	276	246	213	176	137	86.3	22.7	11.4	8.21	5.50	3.13	1.41	0.75	
60	281	274	263	248	229	207	181	152	124	70.8	22.6	11.9	8.92	6.66	4.31	2.57	1.23	0.75	
65	195	190	183	173	156	139	120	76.5	28.5	17.6	11.1	8.77	7.00	4.79	3.19	2.17	1.15	0.75	
70	110	103	91.4	73.0	48.0	26.2	20.1	13.4	11.0	9.26	7.84	6.47	4.83	2.94	2.02	1.75	1.07	0.75	
75	10.7	10.6	10.2	9.78	9.44	8.92	8.30	7.74	7.00	6.20	5.34	4.35	2.86	1.16	1.50	1.31	0.98	0.75	
80	5.63	5.55	5.40	5.22	5.15	5.02	4.79	4.49	4.11	3.68	3.16	2.54	1.51	0.88	1.06	1.07	0.88	0.75	
85	2.40	2.36	2.32	2.26	2.24	2.18	2.10	1.99	1.84	1.65	1.45	1.24	0.95	0.74	0.84	0.86	0.79	0.75	
90	0.63	0.63	0.63	0.63	0.63	0.62	0.63	0.63	0.62	0.62	0.62	0.62	0.62	0.62	0.63	0.64	0.70	0.75	

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: MEDIUM

Temperature:25.3°C

Operators:

Test Date:23 January 2023

γ Range: 0 - 90DEG

γ Interval: 2.5DEG

Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.456

Humidity:65.0%

Test Distance:6.340m [K=1.0000]

Remarks: