

Indoor Distribution Test Report

Photopia Photometric Analysis & Optical Design

Catalog Number

Juniper-Spotlight-500lm

Test Number

1

Test Date

Mon Apr 12 12:30:18 2021

The results contained in this report pertain only to this IES file.

Juniper-Spotlight-500lm
PL135910

Summary of Results

Input

Number of Lamps	1
Lumens per Lamp	N/A lm
Total Input Lumens	N/A lm
Input Watts	5 W

Output

Total Output Lumens	460 lm
Efficiency	N/A %
Efficacy	92 lm/W

Luminous Dimensions

0° - 180° Size	0.13 ft
90° - 270° Size	0.13 ft
Height	0 ft

Photometry Information

Distribution	Direct
Photometry Type	C

Spacing Criterion

Two luminaires, plane 0°	0.36
Two luminaires, plane 90°	0.37
Four luminaires	0.34

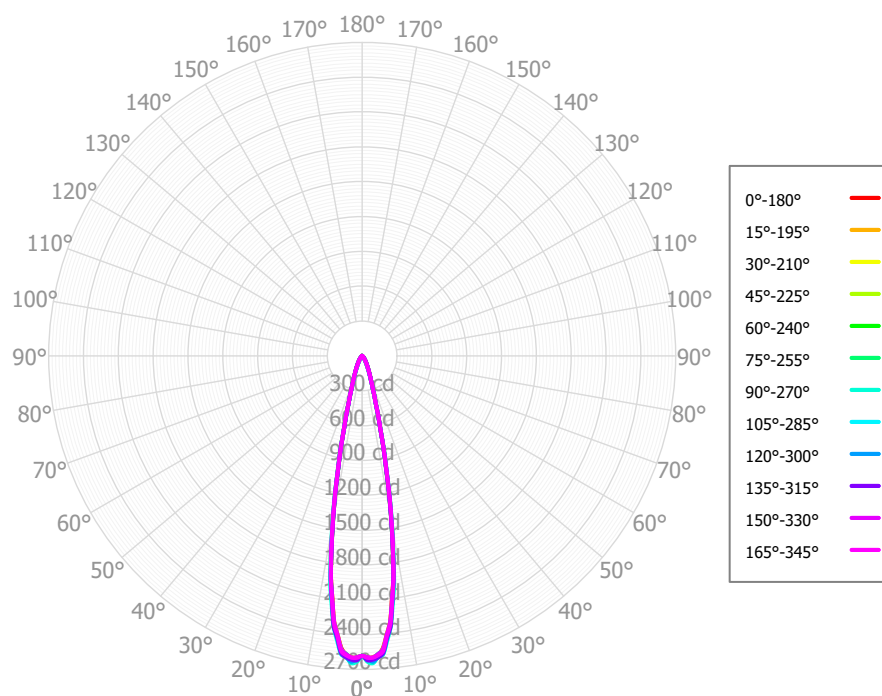
Full Beam Angle

0° - 180°	21.25°
90° - 270°	21.41°

IES Header Data

TESTLAB	Photopia 2020.1.0 see: www.ltioptics.com/i
ISSUEDATE	
TESTDATE	Mon Apr 12 12:30:18 2021
TEST	1
MANUFAC	Juniper
LUMCAT	
LUMINAIRE	Juniper-Spotlight- 500lm
LAMP	PL135910

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0° - 10°	234.43	50.92%	90° - 100°	0.00	0.00%
10° - 20°	189.94	41.25%	100° - 110°	0.00	0.00%
20° - 30°	64.72	14.06%	100° - 120°	0.00	0.00%
30° - 40°	28.08	6.10%	120° - 130°	0.00	0.00%
40° - 50°	11.26	2.45%	130° - 140°	0.00	0.00%
50° - 60°	4.48	0.97%	140° - 150°	0.00	0.00%
60° - 70°	1.66	0.36%	150° - 160°	0.00	0.00%
70° - 80°	0.19	0.04%	160° - 170°	0.00	0.00%
80° - 90°	0.00	0.00%	170° - 180°	0.00	0.00%
0° - 90°	534.77	116.15%	90° - 180°	0.00	0.00%

Candela Distribution

	0.00°	15.00°	30.00°	45.00°	60.00°	75.00°	90.00°
0.00°	2583.08	2583.08	2583.08	2583.08	2583.08	2583.08	2583.08
1.00°	2615.48	2600.67	2593.66	2622.65	2600.72	2604.83	2634.34
2.00°	2597.51	2600.31	2598.55	2618.25	2635.93	2611.02	2648.48
3.00°	2577.98	2582.99	2573.52	2601.53	2597.04	2573.06	2598.50
4.00°	2528.37	2552.70	2538.47	2569.34	2570.07	2542.45	2578.71
5.00°	2415.02	2425.62	2415.72	2442.70	2443.29	2430.20	2465.76
6.00°	2305.50	2319.71	2303.59	2343.85	2332.59	2317.35	2347.29
7.00°	2103.61	2121.91	2108.35	2128.04	2129.77	2127.23	2158.57
8.00°	1929.48	1940.42	1929.37	1940.14	1935.42	1934.30	1978.32
9.00°	1692.56	1698.02	1684.70	1690.22	1687.35	1700.04	1720.85
10.00°	1465.77	1464.52	1449.74	1447.43	1445.51	1464.33	1484.64
11.00°	1239.10	1238.17	1221.08	1215.54	1222.84	1231.47	1256.36
12.00°	1006.22	1008.36	994.49	990.31	987.66	1005.06	1019.80
13.00°	831.93	827.53	817.74	816.08	817.22	827.99	841.84
14.00°	655.96	652.82	642.42	639.74	640.85	647.76	658.10
15.00°	541.26	538.18	535.43	532.80	529.76	531.95	542.77
16.00°	429.23	426.30	420.42	421.66	420.07	420.24	421.58
17.00°	364.59	358.78	358.39	358.96	360.51	357.92	357.38
18.00°	297.39	295.73	292.41	295.20	294.11	289.29	289.04
19.00°	260.49	256.99	258.37	258.94	260.26	251.73	250.77
20.00°	218.41	218.86	220.49	221.08	220.93	214.57	212.00
21.00°	194.47	195.97	197.61	197.42	197.04	190.48	184.79
22.00°	168.07	169.52	172.55	172.99	172.03	163.16	157.93
23.00°	148.81	152.02	154.71	156.02	154.61	146.27	138.66
24.00°	127.57	130.53	136.60	137.38	135.90	126.39	119.70
25.00°	111.40	116.24	123.47	125.85	122.53	111.79	106.21
26.00°	96.93	100.47	108.61	111.51	108.41	96.85	90.48
27.00°	86.43	90.14	98.25	102.84	97.94	85.91	80.25
28.00°	73.68	77.46	87.05	91.16	87.53	74.78	68.20
29.00°	65.54	70.04	79.13	84.77	79.42	67.44	61.89
30.00°	57.21	60.41	70.44	76.61	70.86	58.43	52.79
31.00°	50.63	53.92	64.74	70.12	64.26	52.56	47.57
32.00°	43.56	48.06	57.75	63.59	58.50	45.84	41.36
33.00°	38.61	42.75	52.68	58.83	52.66	41.87	37.29
34.00°	34.27	37.93	47.36	53.79	47.55	36.61	32.02
35.00°	30.37	34.34	43.85	49.65	43.49	33.01	29.24
36.00°	26.22	30.11	39.77	45.08	38.74	29.33	25.14
37.00°	23.44	26.97	36.30	42.28	35.53	26.22	22.73
38.00°	19.89	23.70	32.88	37.88	31.43	22.69	19.56

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	pfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	0	637	637	637	637	622	622	622	622	594	594	594	569	569	569	546	546	535
	1	615	604	594	585	603	593	584	576	572	565	558	552	547	542	534	530	520
	2	595	576	561	547	584	568	553	541	551	539	530	536	526	519	521	514	504
	3	577	552	533	518	567	545	528	514	532	518	506	520	508	498	509	499	490
	4	560	531	510	495	551	526	507	492	515	499	486	505	492	481	496	485	476
	5	543	513	491	475	536	508	488	473	500	482	469	492	477	465	484	472	464
	6	529	496	474	458	522	492	472	457	485	467	454	479	463	451	473	459	452
	7	515	481	459	444	509	478	458	443	472	454	441	467	451	439	462	448	441
	8	502	467	446	431	497	465	445	430	460	442	429	456	439	427	451	437	430
	9	489	455	434	420	485	453	433	419	449	431	418	445	429	417	441	427	420
	10	478	444	423	409	474	442	422	409	438	420	408	435	419	407	432	417	411

Cone of Light

Mtg Height	Light Level	Beam Diameter
6.0 ft	71.8 fc	2.3 ft
8.0 ft	40.4 fc	3.0 ft
10.0 ft	25.8 fc	3.8 ft
12.0 ft	17.9 fc	4.5 ft
14.0 ft	13.2 fc	5.3 ft
16.0 ft	10.1 fc	6.0 ft

UGR CIE 190:2010

Ceiling reflectance		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall reflectance		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Plane reflectance		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
2H	2H	5.7	6.6	6.0	6.9	7.2	5.6	6.5	6.0	6.8	7.2
	3H	5.9	6.7	6.2	7.0	7.4	5.8	6.6	6.2	7.0	7.3
	4H	5.8	6.5	6.2	6.9	7.3	5.7	6.5	6.1	6.8	7.2
	6H	5.7	6.3	6.1	6.7	7.1	5.6	6.3	6.0	6.7	7.1
	8H	5.6	6.2	6.0	6.6	7.0	5.5	6.2	6.0	6.6	7.0
	12H	5.5	6.1	6.0	6.5	7.0	5.5	6.1	5.9	6.5	6.9
4H	2H	6.4	7.2	6.8	7.5	7.9	6.4	7.1	6.8	7.5	7.9
	3H	6.6	7.2	7.0	7.7	8.1	6.6	7.2	7.0	7.6	8.0
	4H	6.5	7.1	7.0	7.5	7.9	6.5	7.0	6.9	7.4	7.9
	6H	6.4	6.9	6.9	7.3	7.8	6.3	6.8	6.8	7.3	7.7
	8H	6.3	6.8	6.8	7.2	7.7	6.3	6.7	6.7	7.1	7.6
	12H	6.3	6.6	6.8	7.1	7.6	6.2	6.6	6.7	7.1	7.5
8H	4H	6.3	6.8	6.8	7.2	7.7	6.3	6.7	6.8	7.2	7.7
	6H	6.2	6.6	6.7	7.1	7.5	6.2	6.5	6.7	7.0	7.5
	8H	6.1	6.4	6.7	7.0	7.5	6.1	6.4	6.6	6.9	7.4
	12H	6.1	6.3	6.6	6.8	7.4	6.0	6.3	6.6	6.8	7.4
12H	4H	6.3	6.7	6.8	7.1	7.6	6.2	6.6	6.7	7.1	7.6
	6H	6.1	6.4	6.7	6.9	7.5	6.1	6.4	6.6	6.9	7.4
	8H	6.1	6.3	6.6	6.8	7.4	6.0	6.3	6.6	6.8	7.4

Corrected UGR values based on total output energy
SHR = 1.0

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	1779459	1779459	1779459
45.00°	6956	20342	6508
55.00°	2618	10137	2955
65.00°	1712	3651	1891
75.00°	186	266	133
85.00°	0	0	0