



PICASSO LIGHTING INDUSTRIES, LLC
320 West Commerical Ave., Moonachie, NJ 07074
201.246.8188

Indoor Distribution Test Report

Picasso Lighting Industries, LLC

320 West Commerical Ave.
Moonachie, NJ 07074

Photopia Photometric Analysis & Optical Design

Catalog Number

MON-PR-4-D7-30-80-FW-W

MONARCH - 4' Downlight - White Housing, Frosted White Lens

Test Number

IES-P00352

Test Date

Thu Sep 23 13:42:16 2021

The results contained in this report pertain only to the tested sample.
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MON-PR-4-D7-30-80-FW-W
MONARCH - 4' Downlight - White Housing, Frosted White Lens
LED (3000K 80+ CRI)

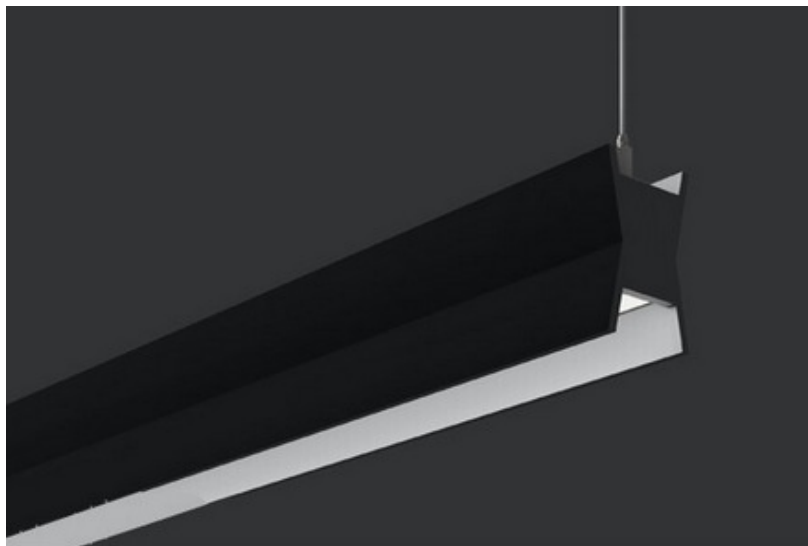


Image may differ slightly from actual unit.

Summary of Results

Output:

Watts:	31.66 W
Lumens:	3,073.68 lm
Efficiency:	N/A
Efficacy:	94.84 lm/W

Spacing Criterion

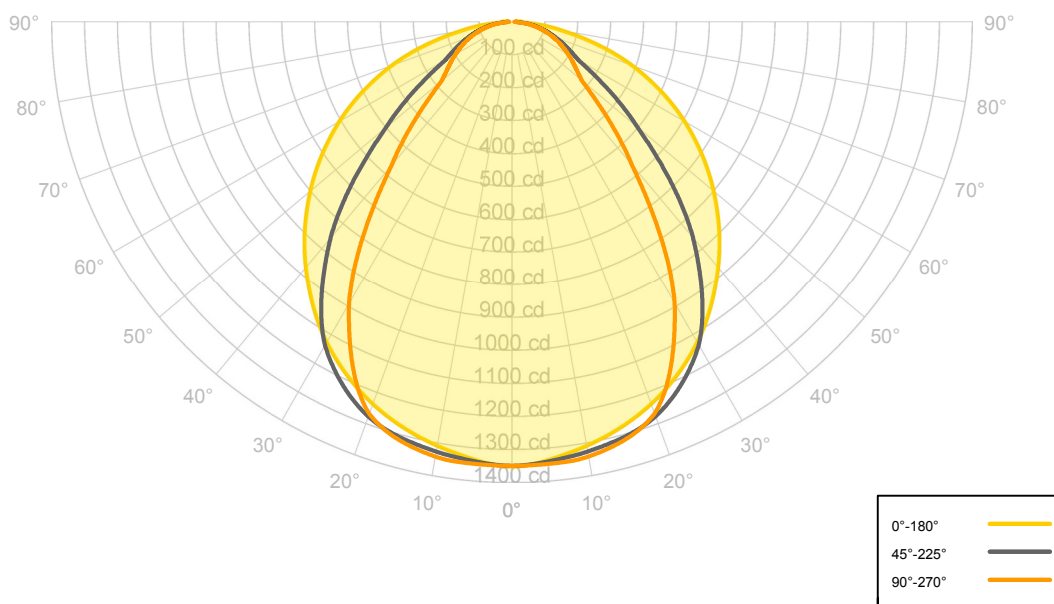
Two luminaires, plane 0°	1.24
Two luminaires, plane 90°	1.11
Four luminaires	1.24

Full Beam Angle

0° - 180°	112.82°
90° - 270°	74.92°

Calculated results may not be representative of field performance.
Ballast factors have not been applied.

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0° - 10°	229.53	7.47%	90° - 100°	6.86	0.22%
10° - 20°	363.22	11.82%	100° - 110°	1.43	0.05%
20° - 30°	538.24	17.51%	100° - 120°	2.11	0.07%
30° - 40°	589.46	19.18%	120° - 130°	0.29	0.01%
40° - 50°	511.89	16.65%	130° - 140°	0.11	0.00%
50° - 60°	382.06	12.43%	140° - 150°	0.03	0.00%
60° - 70°	257.63	8.38%	150° - 160°	0.01	0.00%
70° - 80°	142.73	4.64%	160° - 170°	0.00	0.00%
80° - 90°	49.48	1.61%	170° - 180°	0.02	0.00%
0° - 90°	3,064.24	99.69%	0° - 180°	3,073.68	100.00%



Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	1,351.46	1,351.46	1,351.46	1,351.46	1,351.46
10.00°	1,308.68	1,314.54	1,328.22	1,336.43	1,343.71
20.00°	1,237.16	1,252.93	1,278.24	1,279.04	1,269.41
30.00°	1,126.95	1,156.66	1,137.26	1,046.37	991.28
40.00°	975.25	1,001.27	857.85	645.33	568.29
50.00°	800.34	781.27	498.62	313.22	277.31
60.00°	605.97	503.19	234.65	196.95	197.77
70.00°	388.51	232.33	142.96	135.32	131.73
80.00°	153.49	79.79	69.71	65.32	63.33
90.00°	12.80	13.34	11.37	8.44	7.10
100.00°	0.75	3.08	2.63	1.02	0.05
110.00°	0.21	1.31	1.57	0.66	0.04
120.00°	0.04	0.57	0.76	0.37	0.02
130.00°	0.01	0.26	0.37	0.17	0.01
140.00°	0.01	0.09	0.15	0.07	0.00
150.00°	0.01	0.01	0.05	0.02	0.01
160.00°	0.02	0.01	0.01	0.00	0.00
170.00°	0.04	0.03	0.02	0.05	0.03
180.00°	0.22	0.22	0.22	0.22	0.22

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	22,038	22,038	22,038
45.00°	20,474	15,641	9,750
55.00°	19,991	10,423	6,753
65.00°	19,186	7,285	6,357
75.00°	17,074	6,700	6,145
85.00°	15,556	7,585	6,589



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%	20%	20%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
	0	3,657	3,657	3,657	3,657	3,571	3,571	3,571	3,571	3,410	3,410	3,410	3,263	3,263	3,263	3,128	3,128	3,128	3,064
	1	3,379	3,249	3,132	3,026	3,297	3,179	3,073	2,976	3,048	2,961	2,881	2,928	2,857	2,792	2,817	2,761	2,708	2,645
	2	3,112	2,886	2,699	2,543	3,033	2,828	2,657	2,512	2,720	2,577	2,453	2,620	2,501	2,396	2,528	2,430	2,342	2,280
	3	2,870	2,580	2,355	2,176	2,797	2,532	2,324	2,156	2,442	2,264	2,118	2,358	2,208	2,081	2,281	2,154	2,045	1,982
	4	2,656	2,323	2,079	1,893	2,588	2,283	2,056	1,880	2,207	2,010	1,854	2,137	1,967	1,829	2,072	1,926	1,805	1,743
	5	2,465	2,106	1,855	1,670	2,404	2,072	1,837	1,661	2,009	1,802	1,643	1,949	1,768	1,625	1,894	1,735	1,608	1,547
	6	2,296	1,922	1,670	1,490	2,240	1,893	1,656	1,484	1,839	1,628	1,471	1,789	1,601	1,458	1,741	1,575	1,445	1,387
	7	2,146	1,764	1,516	1,343	2,095	1,740	1,505	1,338	1,693	1,482	1,328	1,650	1,461	1,319	1,610	1,440	1,310	1,253
	8	2,011	1,628	1,386	1,220	1,966	1,607	1,377	1,217	1,567	1,358	1,209	1,530	1,341	1,202	1,495	1,324	1,195	1,141
	9	1,892	1,509	1,275	1,117	1,850	1,492	1,268	1,114	1,457	1,252	1,109	1,425	1,238	1,103	1,395	1,223	1,098	1,045
10	1,784	1,406	1,180	1,029	1,746	1,391	1,174	1,027	1,361	1,161	1,023	1,333	1,149	1,018	1,306	1,137	1,014	964	

Cone of Light

Mtg Height	Light Level	0°-180° Beam Diameter	90°-270° Beam Diameter
6 ft	38 fc	18 ft	9 ft
8 ft	21 fc	24 ft	12 ft
10 ft	14 fc	30 ft	15 ft
12 ft	9 fc	36 ft	18 ft
15 ft	6 fc	45 ft	23 ft