

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P930626

Luminaire Tested: DFN2DS-PN3F0-090DS930-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930626
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-PN3F0-090DS930-RLL
Description: 3 foot, Pentagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

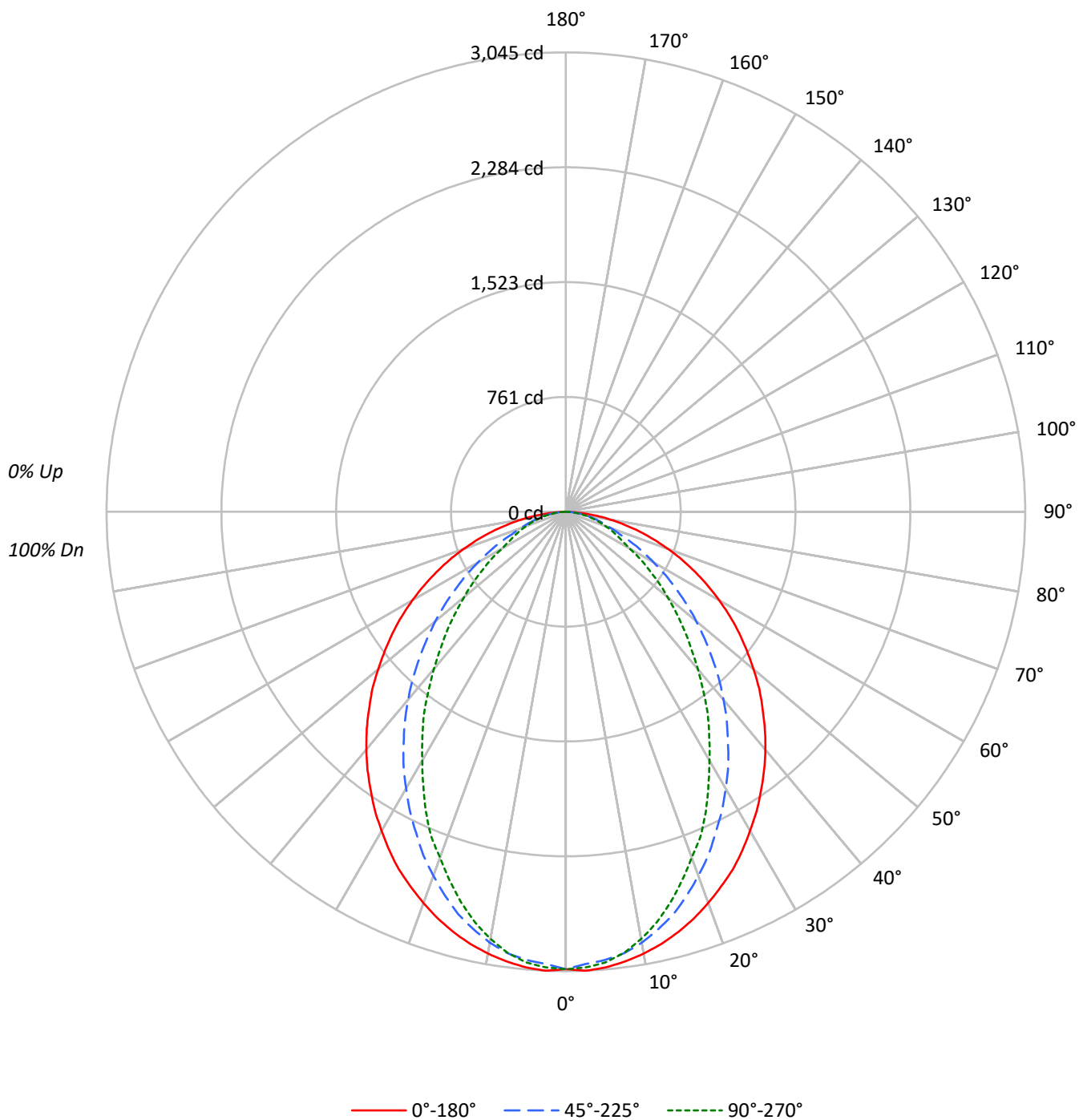
Lumens per Lamp: N/A
Luminaire Lumens: 6234.7 lumens
Efficiency: N/A
Efficacy: 64.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.11' x L: 2.96' x H: 0')
CIE Type: Direct

Input Watts (W): 97.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9954
Total Harmonic Distortion (THDi): 0.076
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930626

CATALOG NUMBER: DFN2DS-PN3F0-090DS930-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P930626

CATALOG NUMBER: DFN2DS-PN3F0-090DS930-RLL

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3544	3544	3544
5°	3557	3499	3519
10°	3530	3442	3413
15°	3490	3340	3244
20°	3433	3194	3034
25°	3376	3029	2831
30°	3296	2859	2570
35°	3218	2674	2341
40°	3140	2482	2077
45°	3048	2268	1837
50°	2954	2051	1602
55°	2857	1817	1376
60°	2745	1571	1142
65°	2618	1320	1039
70°	2466	1088	956
75°	2280	991	892
80°	2012	885	813
85°	1580	699	699

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 3048 cd/sqm

TEST NUMBER: P930626

CATALOG NUMBER: DFN2DS-PN3F0-090DS930-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.1	4.6
10°-20°	780.0	12.5
20°-30°	1095.0	17.6
30°-40°	1193.7	19.1
40°-50°	1097.1	17.6
50°-60°	861.6	13.8
60°-70°	560.8	9.0
70°-80°	288.7	4.6
80°-90°	73.7	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2159.1	34.6
0°-40°	3352.8	53.8
0°-60°	5311.5	85.2
0°-90°	6234.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6234.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3032	3032	3032	3032	3032	
5°	3032	3018	2982	3007	2999	287
15°	2883	2853	2760	2708	2680	813
25°	2617	2529	2348	2236	2195	1204
35°	2255	2115	1874	1701	1640	1412
45°	1844	1660	1372	1177	1111	1424
55°	1402	1188	892	727	675	1253
65°	946	724	477	384	376	938
75°	505	313	220	200	198	534
85°	118	60	52	52	52	141
90°	0	0	0	0	0	

TEST NUMBER: P930626

CATALOG NUMBER: DFN2DS-PN3F0-090DS930-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3031.6	3031.6	3031.6	3031.6	3031.6
2.5°	3045.2	3031.6	3001.2	3028.9	3023.4
5°	3031.6	3017.9	2982.1	3006.8	2998.6
7.5°	3006.8	2990.5	2952.1	2962.9	2949.2
10°	2973.9	2954.7	2900.0	2891.5	2875.2
12.5°	2932.9	2908.2	2833.9	2817.6	2787.3
15°	2883.4	2853.2	2760.0	2707.8	2680.5
17.5°	2825.8	2781.8	2666.5	2606.3	2562.4
20°	2760.0	2705.0	2567.8	2499.4	2438.9
22.5°	2688.7	2625.5	2466.3	2373.1	2332.1
25°	2617.4	2529.4	2348.4	2236.0	2194.7
27.5°	2532.4	2438.9	2238.6	2109.7	2046.5
30°	2441.8	2337.3	2117.9	1978.2	1903.9
32.5°	2353.9	2227.6	2002.9	1838.2	1769.4
35°	2255.3	2115.3	1873.9	1701.1	1640.5
37.5°	2159.2	2008.2	1753.1	1563.7	1495.3
40°	2057.6	1893.2	1626.8	1432.1	1360.8
42.5°	1953.4	1777.9	1500.7	1297.6	1229.2
45°	1843.7	1659.7	1371.8	1176.8	1111.0
47.5°	1739.5	1544.8	1248.4	1053.4	993.2
50°	1624.2	1429.4	1127.6	938.1	880.8
52.5°	1511.6	1305.8	1012.4	831.3	779.2
55°	1401.8	1187.9	891.5	727.1	675.0
57.5°	1289.5	1070.0	784.8	631.1	587.1
60°	1174.2	954.7	672.1	532.4	488.4
62.5°	1061.9	842.4	576.0	444.5	422.7
65°	946.5	724.2	477.3	384.2	375.8
67.5°	836.8	614.4	384.2	337.3	329.2
70°	721.6	507.7	318.2	290.8	279.7
72.5°	611.8	408.6	266.0	244.2	238.7
75°	504.7	312.6	219.5	200.2	197.6
77.5°	397.9	222.1	172.9	161.9	156.3
80°	298.9	159.3	131.5	120.8	120.8
82.5°	208.4	107.1	90.5	85.0	85.0
85°	117.8	60.2	52.1	52.1	52.1
87.5°	43.9	21.8	21.8	19.2	19.2
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930626

CATALOG NUMBER: DFN2DS-PN3F0-090DS930-RLL

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		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				
X=2H	Y=2H	15.63	17.15	16.00	17.47	17.78	11.59	13.11	11.96	13.43	13.74
	3H	17.40	18.76	17.77	19.09	19.45	12.86	14.22	13.23	14.55	14.91
	4H	18.06	19.34	18.46	19.69	20.07	13.36	14.64	13.76	14.99	15.37
	6H	18.55	19.73	18.96	20.10	20.49	13.74	14.92	14.15	15.29	15.68
	8H	18.72	19.84	19.14	20.23	20.63	13.86	14.99	14.29	15.38	15.78
	12H	18.82	19.90	19.25	20.28	20.71	13.94	15.02	14.38	15.40	15.83
4H	2H	15.73	17.02	16.13	17.36	17.74	12.29	13.57	12.69	13.92	14.29
	3H	17.67	18.73	18.08	19.13	19.53	13.73	14.79	14.14	15.19	15.59
	4H	18.42	19.37	18.85	19.79	20.23	14.33	15.29	14.76	15.70	16.14
	6H	19.01	19.84	19.47	20.28	20.74	14.82	15.65	15.27	16.09	16.55
	8H	19.22	20.00	19.69	20.44	20.91	14.98	15.76	15.44	16.20	16.67
	12H	19.38	20.07	19.86	20.55	21.02	15.10	15.79	15.58	16.27	16.74
8H	4H	18.44	19.22	18.90	19.66	20.13	14.68	15.46	15.15	15.90	16.37
	6H	19.08	19.72	19.58	20.21	20.69	15.27	15.91	15.77	16.40	16.88
	8H	19.33	19.91	19.84	20.42	20.90	15.49	16.07	16.00	16.58	17.07
	12H	19.53	20.04	20.04	20.54	21.10	15.67	16.18	16.18	16.67	17.24
12H	4H	18.43	19.12	18.91	19.60	20.07	14.73	15.42	15.21	15.90	16.37
	6H	19.06	19.64	19.57	20.15	20.64	15.33	15.91	15.85	16.42	16.91
	8H	19.34	19.85	19.85	20.35	20.91	15.61	16.12	16.12	16.61	17.17