

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: P930631

Luminaire Tested: DFN2DS-PN3F0-090DS950-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930631
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-PN3F0-090DS950-FLL
Description: 3 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

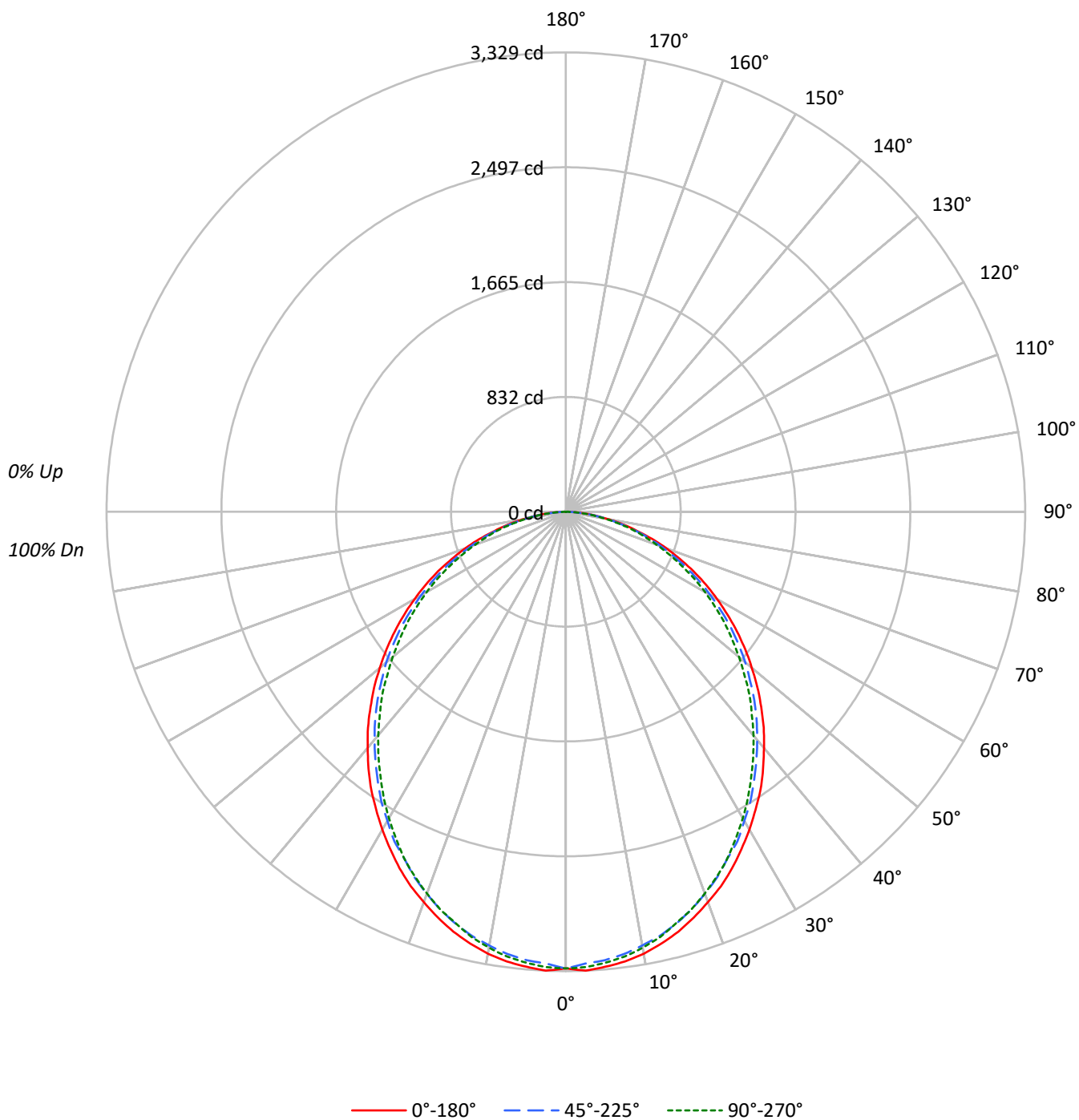
Lumens per Lamp: N/A
Luminaire Lumens: 8420.0 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.11' x L: 2.96' x H: 0')
CIE Type: Direct

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: P930631

CATALOG NUMBER: DFN2DS-PN3F0-090DS950-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P930631

CATALOG NUMBER: DFN2DS-PN3F0-090DS950-FLL

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	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3869	3869	3869
5°	3883	3828	3850
10°	3861	3789	3808
15°	3813	3739	3736
20°	3745	3666	3662
25°	3678	3575	3575
30°	3591	3492	3462
35°	3510	3392	3342
40°	3409	3292	3229
45°	3309	3193	3115
50°	3200	3090	2980
55°	3087	2970	2860
60°	2961	2827	2723
65°	2826	2685	2562
70°	2654	2512	2393
75°	2414	2313	2257
80°	2143	2077	1971
85°	1748	1667	1494

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3309 cd/sqm

TEST NUMBER: P930631

CATALOG NUMBER: DFN2DS-PN3F0-090DS950-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.5	3.7
10°-20°	876.4	10.4
20°-30°	1287.9	15.3
30°-40°	1495.9	17.8
40°-50°	1494.0	17.7
50°-60°	1302.7	15.5
60°-70°	963.0	11.4
70°-80°	544.8	6.5
80°-90°	143.8	1.7
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°	2475.8	29.4
0°-40°	3971.6	47.2
0°-60°	6768.3	80.4
0°-90°	8420.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8420.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3309	3309	3309	3309	3309	
5°	3309	3297	3262	3287	3281	314
15°	3150	3131	3090	3103	3087	887
25°	2851	2826	2772	2778	2772	1312
35°	2460	2428	2377	2358	2342	1536
45°	2002	1980	1932	1897	1884	1545
55°	1515	1496	1458	1419	1404	1354
65°	1022	1002	971	942	926	1010
75°	534	528	512	493	500	571
85°	130	127	124	114	111	153
90°	0	0	0	0	0	

TEST NUMBER: P930631

CATALOG NUMBER: DFN2DS-PN3F0-090DS950-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3309.3	3309.3	3309.3	3309.3	3309.3
2.5°	3328.6	3312.7	3277.6	3309.3	3303.2
5°	3309.3	3296.8	3261.8	3287.1	3280.9
7.5°	3287.1	3268.2	3233.0	3258.7	3252.3
10°	3252.3	3230.0	3191.8	3217.2	3207.7
12.5°	3204.3	3185.4	3147.3	3163.1	3156.8
15°	3150.3	3131.4	3089.9	3102.7	3086.8
17.5°	3083.4	3064.5	3023.1	3038.9	3023.1
20°	3010.2	2991.3	2946.7	2956.1	2943.7
22.5°	2937.2	2908.6	2867.0	2867.0	2860.6
25°	2851.2	2825.8	2771.9	2777.9	2771.9
27.5°	2755.6	2733.3	2692.2	2682.8	2666.9
30°	2660.5	2634.8	2587.1	2577.7	2564.9
32.5°	2558.5	2539.6	2488.6	2469.4	2456.5
35°	2459.9	2428.2	2377.1	2358.0	2342.1
37.5°	2348.5	2319.8	2268.8	2246.5	2230.7
40°	2234.0	2208.4	2157.3	2129.0	2116.2
42.5°	2122.6	2097.0	2046.3	2014.3	1995.4
45°	2001.7	1979.5	1931.5	1896.7	1884.0
47.5°	1884.0	1861.6	1810.6	1775.6	1756.7
50°	1759.7	1743.8	1699.2	1654.7	1638.8
52.5°	1638.8	1616.5	1575.3	1540.3	1518.0
55°	1514.9	1495.7	1457.5	1419.4	1403.5
57.5°	1390.7	1374.8	1333.3	1295.1	1282.3
60°	1266.4	1253.9	1209.3	1174.3	1164.8
62.5°	1145.5	1123.2	1091.5	1059.8	1047.0
65°	1021.6	1002.4	970.6	942.0	926.1
67.5°	894.3	878.2	849.7	827.5	814.7
70°	776.5	763.7	735.0	712.7	700.2
72.5°	655.6	642.8	626.9	604.7	595.3
75°	534.5	528.3	512.2	493.3	499.7
77.5°	426.4	413.6	407.2	397.8	388.3
80°	318.4	315.0	308.5	299.1	292.8
82.5°	216.4	216.4	213.4	200.5	200.5
85°	130.3	127.3	124.3	114.4	111.4
87.5°	57.4	50.9	44.6	35.2	31.8
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930631

CATALOG NUMBER: DFN2DS-PN3F0-090DS950-FLL

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	15.98	17.59	16.35	17.91	18.22	15.54	17.15	15.90	17.46	17.78
	3H	17.73	19.19	18.11	19.51	19.87	17.24	18.70	17.62	19.02	19.38
	4H	18.38	19.75	18.78	20.10	20.47	17.88	19.25	18.28	19.60	19.98
	6H	18.85	20.12	19.26	20.48	20.87	18.35	19.62	18.76	19.98	20.37
	8H	18.99	20.20	19.42	20.59	20.99	18.49	19.70	18.91	20.09	20.49
	12H	19.08	20.24	19.51	20.62	21.05	18.57	19.73	19.00	20.11	20.54
4H	2H	16.54	17.91	16.94	18.26	18.64	16.19	17.56	16.59	17.91	18.28
	3H	18.52	19.66	18.93	20.06	20.46	18.11	19.26	18.52	19.66	20.06
	4H	19.29	20.33	19.73	20.74	21.18	18.87	19.91	19.30	20.32	20.76
	6H	19.89	20.80	20.35	21.24	21.69	19.46	20.36	19.91	20.80	21.26
	8H	20.08	20.93	20.54	21.37	21.84	19.64	20.49	20.10	20.93	21.40
	12H	20.21	20.97	20.69	21.45	21.92	19.76	20.52	20.24	21.00	21.47
8H	4H	19.57	20.41	20.03	20.86	21.32	19.19	20.04	19.65	20.48	20.95
	6H	20.28	20.99	20.78	21.47	21.95	19.90	20.60	20.40	21.09	21.57
	8H	20.54	21.17	21.05	21.68	22.17	20.15	20.78	20.66	21.29	21.77
	12H	20.74	21.30	21.25	21.79	22.35	20.33	20.89	20.84	21.38	21.94
12H	4H	19.59	20.35	20.07	20.83	21.30	19.23	19.99	19.71	20.47	20.93
	6H	20.33	20.96	20.84	21.47	21.95	19.96	20.59	20.47	21.10	21.58
	8H	20.64	21.20	21.15	21.69	22.25	20.26	20.82	20.77	21.31	21.87