

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: P931055

Luminaire Tested: DFN2DS-SQ3F0-120DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931055
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-SQ3F0-120DS927-FLL
Description: 3 foot, Square Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

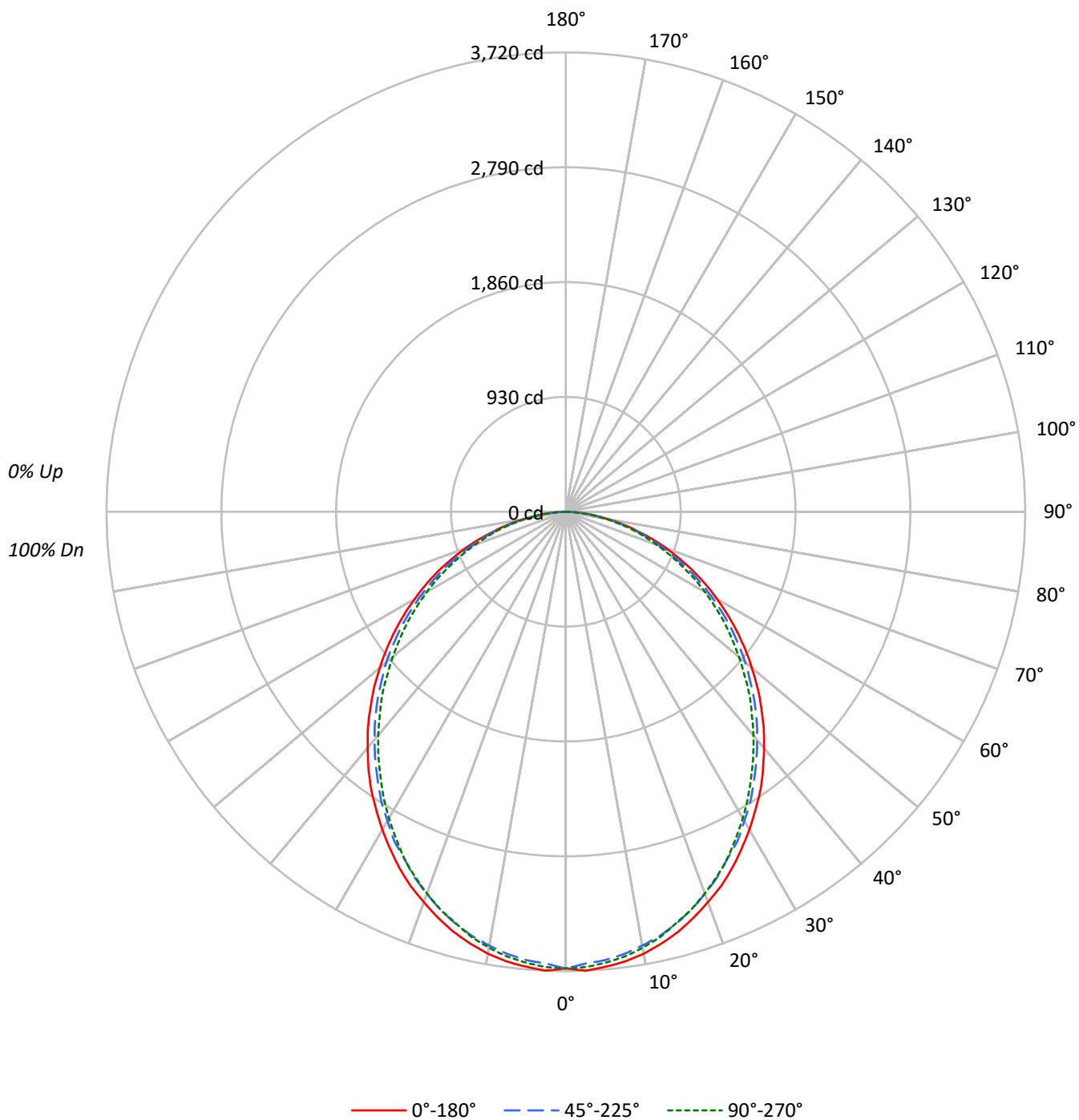
Lumens per Lamp: N/A
Luminaire Lumens: 9408.9 lumens
Efficiency: N/A
Efficacy: 71.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.06' x L: 3.06' x H: 0')
CIE Type: Direct

Input Watts (W): 131.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9957
Total Harmonic Distortion (THDi): 0.049
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P931055

CATALOG NUMBER: DFN2DS-SQ3F0-120DS927-FLL

Luminous Intensity Polar Plot



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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°	4237	4237	4237
5°	4253	4192	4217
10°	4228	4150	4170
15°	4176	4096	4092
20°	4102	4015	4011
25°	4028	3916	3916
30°	3933	3825	3792
35°	3845	3716	3661
40°	3734	3606	3537
45°	3625	3497	3411
50°	3505	3385	3264
55°	3382	3254	3133
60°	3243	3097	2983
65°	3095	2941	2806
70°	2907	2751	2621
75°	2644	2534	2472
80°	2348	2275	2158
85°	1914	1825	1637

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3625 cd/sqm

TEST NUMBER: P931055

CATALOG NUMBER: DFN2DS-SQ3F0-120DS927-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.1	3.7
10°-20°	979.3	10.4
20°-30°	1439.2	15.3
30°-40°	1671.6	17.8
40°-50°	1669.5	17.7
50°-60°	1455.7	15.5
60°-70°	1076.1	11.4
70°-80°	608.8	6.5
80°-90°	160.7	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°	2766.6	29.4
0°-40°	4438.1	47.2
0°-60°	7563.3	80.4
0°-90°	9408.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9408.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3698	3698	3698	3698	3698	
5°	3698	3684	3645	3673	3666	351
15°	3520	3499	3453	3467	3449	991
25°	3186	3158	3097	3104	3097	1466
35°	2749	2713	2656	2635	2617	1717
45°	2237	2212	2158	2120	2105	1726
55°	1693	1671	1629	1586	1568	1513
65°	1142	1120	1085	1053	1035	1129
75°	597	590	572	551	558	638
85°	146	142	139	128	124	171
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3698.1	3698.1	3698.1	3698.1	3698.1
2.5°	3719.5	3701.8	3662.6	3698.1	3691.3
5°	3698.1	3684.1	3644.9	3673.1	3666.3
7.5°	3673.1	3652.0	3612.8	3641.5	3634.3
10°	3634.3	3609.4	3566.8	3595.0	3584.5
12.5°	3580.7	3559.6	3517.0	3534.7	3527.5
15°	3520.4	3499.2	3452.8	3467.1	3449.4
17.5°	3445.7	3424.5	3378.1	3395.9	3378.1
20°	3363.8	3342.6	3292.9	3303.4	3289.5
22.5°	3282.3	3250.2	3203.8	3203.8	3196.7
25°	3186.1	3157.8	3097.4	3104.2	3097.4
27.5°	3079.3	3054.4	3008.4	2997.8	2980.1
30°	2972.9	2944.3	2891.0	2880.5	2866.2
32.5°	2859.0	2837.9	2780.9	2759.4	2745.1
35°	2748.8	2713.4	2656.4	2634.9	2617.2
37.5°	2624.3	2592.3	2535.3	2510.4	2492.7
40°	2496.5	2467.8	2410.8	2379.1	2364.8
42.5°	2372.0	2343.3	2286.7	2250.9	2229.7
45°	2236.8	2212.0	2158.4	2119.6	2105.2
47.5°	2105.2	2080.3	2023.3	1984.1	1963.0
50°	1966.4	1948.6	1898.8	1849.0	1831.3
52.5°	1831.3	1806.4	1760.4	1721.1	1696.2
55°	1692.8	1671.4	1628.7	1586.1	1568.3
57.5°	1554.0	1536.2	1489.8	1447.2	1432.9
60°	1415.1	1401.2	1351.4	1312.2	1301.6
62.5°	1280.1	1255.2	1219.8	1184.3	1169.9
65°	1141.7	1120.1	1084.6	1052.6	1034.9
67.5°	999.4	981.3	949.6	924.7	910.4
70°	867.7	853.4	821.3	796.4	782.5
72.5°	732.7	718.3	700.6	675.7	665.1
75°	597.2	590.4	572.3	551.2	558.4
77.5°	476.5	462.1	455.0	444.4	433.9
80°	355.8	352.0	344.8	334.3	327.1
82.5°	241.8	241.8	238.5	224.1	224.1
85°	145.6	142.2	138.8	127.9	124.5
87.5°	64.2	56.9	49.8	39.2	35.5
90°	0.0	0.0	0.0	0.0	0.0

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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	16.30	17.91	16.66	18.22	18.54	15.85	17.47	16.22	17.78	18.09
	3H	18.05	19.50	18.43	19.83	20.19	17.56	19.01	17.94	19.34	19.70
	4H	18.70	20.06	19.09	20.41	20.79	18.20	19.57	18.60	19.92	20.29
	6H	19.16	20.43	19.58	20.80	21.19	18.66	19.93	19.07	20.30	20.69
	8H	19.31	20.52	19.73	20.91	21.31	18.80	20.02	19.23	20.40	20.80
	12H	19.40	20.56	19.83	20.94	21.37	18.89	20.05	19.32	20.43	20.86
4H	2H	16.86	18.23	17.26	18.58	18.95	16.51	17.88	16.91	18.22	18.60
	3H	18.83	19.98	19.24	20.38	20.78	18.43	19.57	18.84	19.97	20.37
	4H	19.61	20.65	20.04	21.06	21.50	19.19	20.22	19.62	20.64	21.07
	6H	20.21	21.11	20.66	21.55	22.01	19.78	20.68	20.23	21.12	21.58
	8H	20.40	21.24	20.86	21.69	22.15	19.96	20.81	20.42	21.25	21.71
	12H	20.53	21.29	21.01	21.76	22.23	20.08	20.84	20.56	21.31	21.78
8H	4H	19.88	20.73	20.35	21.17	21.64	19.51	20.36	19.97	20.80	21.26
	6H	20.60	21.30	21.09	21.79	22.27	20.22	20.92	20.71	21.41	21.88
	8H	20.86	21.49	21.37	22.00	22.48	20.47	21.10	20.98	21.60	22.09
	12H	21.06	21.62	21.56	22.11	22.67	20.64	21.20	21.15	21.69	22.25
12H	4H	19.91	20.67	20.39	21.15	21.62	19.55	20.31	20.03	20.78	21.25
	6H	20.64	21.28	21.15	21.78	22.27	20.28	20.91	20.79	21.41	21.90
	8H	20.96	21.52	21.46	22.01	22.57	20.58	21.14	21.09	21.63	22.19