

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: P931024

Luminaire Tested: DFN2DS-SQ3F0-100DS935-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931024
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-SQ3F0-100DS935-RLL
Description: 3 foot, Square Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

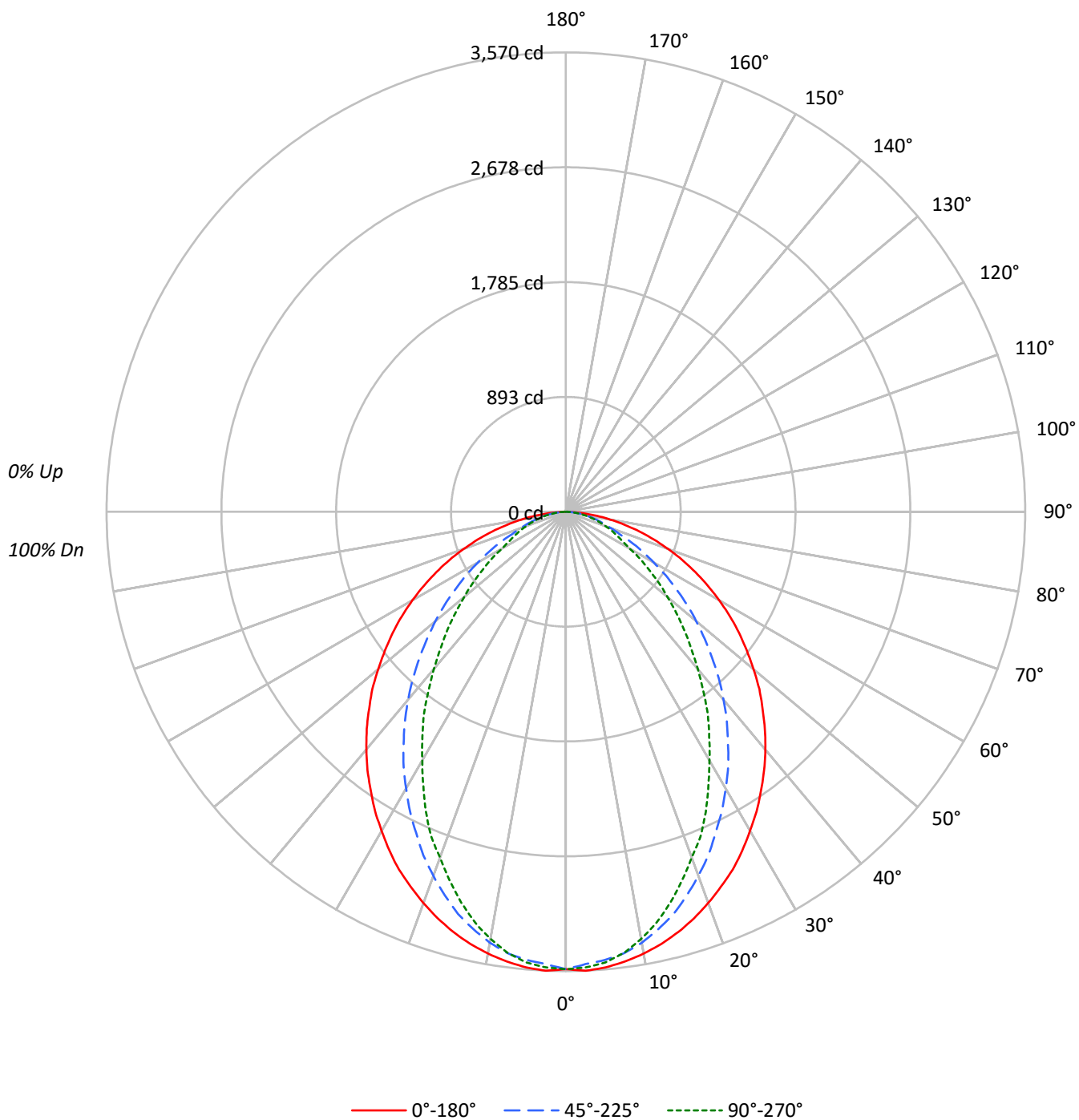
Lumens per Lamp: N/A
Luminaire Lumens: 7310.0 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.06' x L: 3.06' x H: 0')
CIE Type: Direct

Input Watts (W): 104.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9781
Total Harmonic Distortion (THDi): 0.075
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P931024

CATALOG NUMBER: DFN2DS-SQ3F0-100DS935-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P931024

CATALOG NUMBER: DFN2DS-SQ3F0-100DS935-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°	4073	4073	4073
5°	4088	4021	4044
10°	4057	3956	3922
15°	4010	3838	3728
20°	3946	3671	3487
25°	3880	3481	3253
30°	3788	3285	2953
35°	3699	3073	2690
40°	3608	2853	2386
45°	3503	2606	2111
50°	3395	2357	1841
55°	3283	2088	1581
60°	3155	1806	1312
65°	3009	1517	1195
70°	2834	1250	1099
75°	2620	1139	1026
80°	2312	1018	934
85°	1817	803	803

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3503 cd/sqm

TEST NUMBER: P931024

CATALOG NUMBER: DFN2DS-SQ3F0-100DS935-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.1	4.6
10°-20°	914.5	12.5
20°-30°	1283.9	17.6
30°-40°	1399.5	19.1
40°-50°	1286.3	17.6
50°-60°	1010.2	13.8
60°-70°	657.6	9.0
70°-80°	338.5	4.6
80°-90°	86.4	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°	2531.5	34.6
0°-40°	3931.0	53.8
0°-60°	6227.6	85.2
0°-90°	7310.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7310.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3554	3554	3554	3554	3554	
5°	3554	3538	3496	3525	3516	337
15°	3381	3345	3236	3175	3143	953
25°	3069	2966	2753	2622	2573	1411
35°	2644	2480	2197	1994	1923	1655
45°	2162	1946	1608	1380	1303	1669
55°	1644	1393	1045	852	791	1469
65°	1110	849	560	450	441	1100
75°	592	366	257	235	232	626
85°	138	71	61	61	61	166
90°	0	0	0	0	0	

TEST NUMBER: P931024

CATALOG NUMBER: DFN2DS-SQ3F0-100DS935-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3554.4	3554.4	3554.4	3554.4	3554.4
2.5°	3570.4	3554.4	3518.9	3551.3	3544.8
5°	3554.4	3538.3	3496.3	3525.4	3515.8
7.5°	3525.4	3506.2	3461.2	3473.8	3457.8
10°	3486.8	3464.3	3400.1	3390.2	3371.1
12.5°	3438.7	3409.6	3322.6	3303.5	3268.0
15°	3380.7	3345.1	3235.9	3174.9	3142.8
17.5°	3313.1	3261.5	3126.4	3055.8	3004.2
20°	3235.9	3171.4	3010.7	2930.5	2859.5
22.5°	3152.3	3078.3	2891.6	2782.4	2734.3
25°	3068.7	2965.7	2753.4	2621.6	2573.2
27.5°	2969.1	2859.5	2624.7	2473.5	2399.5
30°	2862.9	2740.4	2483.1	2319.3	2232.3
32.5°	2759.9	2611.7	2348.3	2155.2	2074.6
35°	2644.2	2480.1	2197.1	1994.4	1923.4
37.5°	2531.6	2354.4	2055.5	1833.3	1753.1
40°	2412.5	2219.7	1907.4	1679.1	1595.5
42.5°	2290.3	2084.5	1759.6	1521.4	1441.2
45°	2161.6	1945.9	1608.5	1379.8	1302.6
47.5°	2039.5	1811.2	1463.7	1235.0	1164.4
50°	1904.3	1676.0	1322.1	1099.9	1032.7
52.5°	1772.2	1531.0	1187.0	974.6	913.6
55°	1643.5	1392.8	1045.3	852.5	791.4
57.5°	1511.9	1254.5	920.1	739.9	688.3
60°	1376.7	1119.4	788.0	624.2	572.7
62.5°	1244.9	987.6	675.4	521.2	495.5
65°	1109.8	849.1	559.7	450.5	440.6
67.5°	981.2	720.4	450.5	395.5	386.0
70°	846.0	595.2	373.0	340.9	328.0
72.5°	717.3	479.1	311.9	286.3	279.8
75°	591.8	366.5	257.3	234.8	231.7
77.5°	466.6	260.4	202.7	189.7	183.3
80°	350.4	186.7	154.3	141.6	141.6
82.5°	244.3	125.6	106.1	99.7	99.7
85°	138.2	70.6	61.1	61.1	61.1
87.5°	51.5	25.6	25.6	22.5	22.5
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931024

CATALOG NUMBER: DFN2DS-SQ3F0-100DS935-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	16.11	17.64	16.48	17.95	18.26	12.07	13.60	12.44	13.91	14.22
	3H	17.88	19.24	18.26	19.57	19.93	13.34	14.70	13.72	15.03	15.39
	4H	18.55	19.83	18.94	20.17	20.55	13.84	15.12	14.24	15.47	15.85
	6H	19.03	20.22	19.45	20.58	20.98	14.22	15.40	14.63	15.77	16.16
	8H	19.20	20.33	19.63	20.72	21.12	14.35	15.47	14.77	15.86	16.26
	12H	19.30	20.38	19.73	20.76	21.19	14.43	15.51	14.86	15.89	16.32
4H	2H	16.22	17.50	16.62	17.85	18.23	12.77	14.05	13.17	14.40	14.78
	3H	18.15	19.21	18.56	19.61	20.01	14.21	15.28	14.62	15.68	16.08
	4H	18.90	19.86	19.33	20.27	20.71	14.81	15.77	15.24	16.18	16.62
	6H	19.49	20.32	19.95	20.77	21.23	15.30	16.13	15.76	16.57	17.03
	8H	19.71	20.48	20.17	20.93	21.40	15.46	16.24	15.93	16.68	17.15
	12H	19.86	20.55	20.34	21.03	21.50	15.58	16.27	16.06	16.75	17.22
8H	4H	18.92	19.70	19.39	20.15	20.61	15.17	15.94	15.63	16.39	16.85
	6H	19.56	20.20	20.06	20.70	21.17	15.75	16.40	16.25	16.89	17.36
	8H	19.81	20.39	20.33	20.90	21.39	15.97	16.55	16.49	17.06	17.55
	12H	20.02	20.53	20.53	21.02	21.58	16.15	16.66	16.66	17.16	17.72
12H	4H	18.91	19.60	19.39	20.08	20.55	15.21	15.90	15.69	16.38	16.85
	6H	19.54	20.12	20.06	20.63	21.12	15.82	16.39	16.33	16.90	17.39
	8H	19.83	20.34	20.34	20.83	21.39	16.09	16.60	16.60	17.09	17.66

END OF REPORT

FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE

7 of 7