

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: P931028

Luminaire Tested: DFN2DS-SQ3F0-100DS950-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931028
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-SQ3F0-100DS950-RLL
Description: 3 foot, Square Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

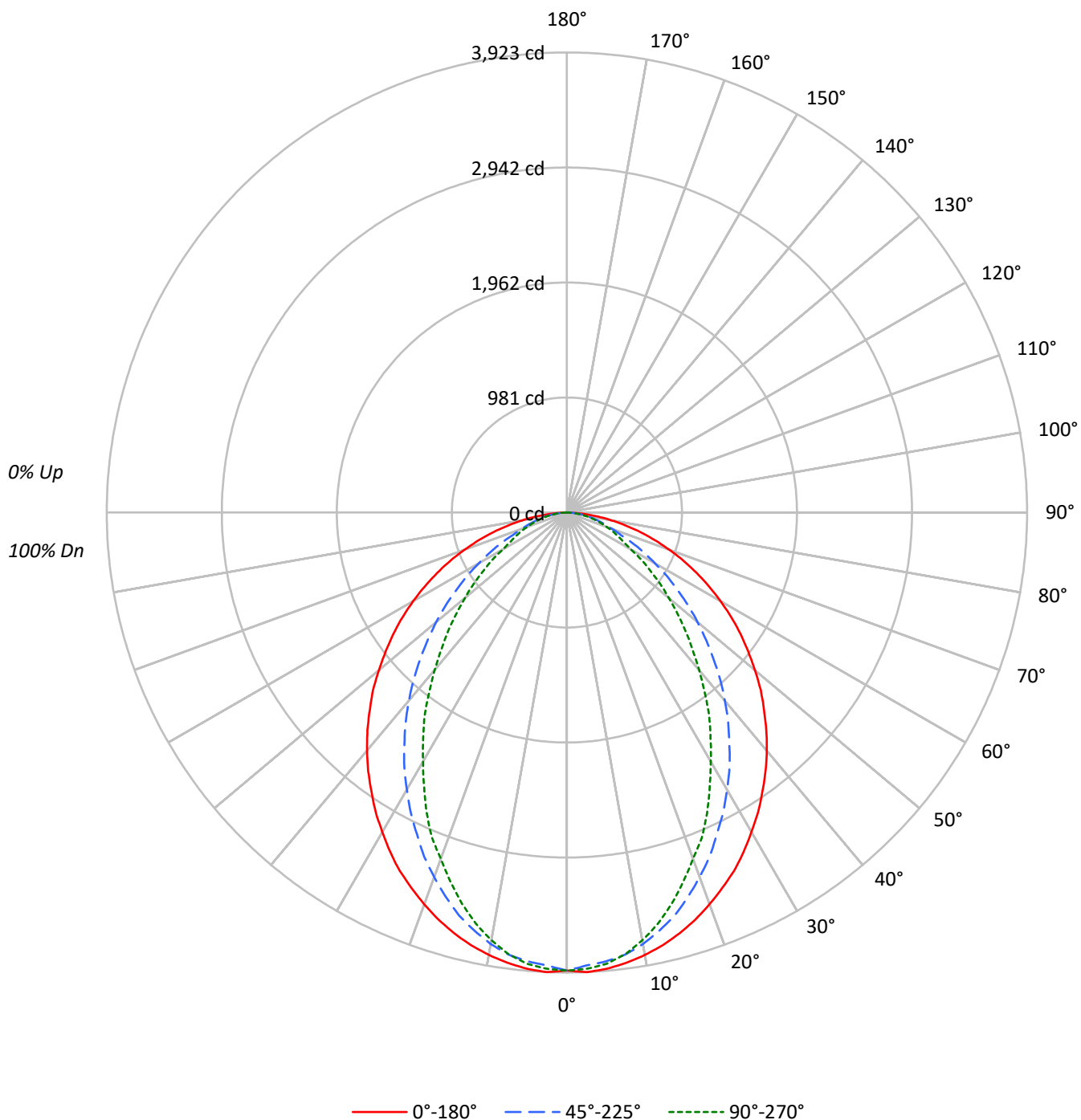
Lumens per Lamp: N/A
Luminaire Lumens: 8032.5 lumens
Efficiency: N/A
Efficacy: 77.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.06' x L: 3.06' x H: 0')
CIE Type: Direct

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: P931028

CATALOG NUMBER: DFN2DS-SQ3F0-100DS950-RLL

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	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°	4475	4475	4475
5°	4492	4419	4443
10°	4458	4347	4310
15°	4407	4218	4096
20°	4336	4034	3831
25°	4263	3825	3575
30°	4162	3610	3245
35°	4064	3377	2956
40°	3965	3135	2622
45°	3849	2864	2319
50°	3730	2590	2023
55°	3608	2294	1737
60°	3467	1984	1442
65°	3306	1667	1312
70°	3114	1373	1207
75°	2879	1252	1127
80°	2541	1118	1027
85°	1997	882	882

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 3849 cd/sqm

TEST NUMBER: P931028

CATALOG NUMBER: DFN2DS-SQ3F0-100DS950-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.0	4.6
10°-20°	1004.9	12.5
20°-30°	1410.8	17.6
30°-40°	1537.9	19.1
40°-50°	1413.5	17.6
50°-60°	1110.1	13.8
60°-70°	722.5	9.0
70°-80°	371.9	4.6
80°-90°	95.0	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°	2781.7	34.6
0°-40°	4319.6	53.8
0°-60°	6843.1	85.2
0°-90°	8032.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8032.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3906	3906	3906	3906	3906	
5°	3906	3888	3842	3874	3863	370
15°	3715	3676	3556	3489	3453	1047
25°	3372	3259	3026	2881	2828	1551
35°	2906	2725	2414	2192	2114	1819
45°	2375	2138	1767	1516	1431	1834
55°	1806	1530	1149	937	870	1614
65°	1220	933	615	495	484	1209
75°	650	403	283	258	255	688
85°	152	78	67	67	67	182
90°	0	0	0	0	0	

TEST NUMBER: P931028

CATALOG NUMBER: DFN2DS-SQ3F0-100DS950-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3905.7	3905.7	3905.7	3905.7	3905.7
2.5°	3923.3	3905.7	3866.7	3902.3	3895.2
5°	3905.7	3888.0	3841.9	3873.8	3863.3
7.5°	3873.8	3852.8	3803.2	3817.1	3799.6
10°	3831.4	3806.6	3736.2	3725.3	3704.3
12.5°	3778.6	3746.6	3651.0	3630.0	3591.0
15°	3714.8	3675.8	3555.8	3488.7	3453.4
17.5°	3640.5	3583.9	3435.5	3357.8	3301.2
20°	3555.8	3484.9	3308.3	3220.2	3142.1
22.5°	3463.9	3382.5	3177.4	3057.5	3004.5
25°	3372.0	3258.8	3025.5	2880.7	2827.5
27.5°	3262.5	3142.1	2884.1	2718.0	2636.6
30°	3145.9	3011.2	2728.5	2548.6	2452.9
32.5°	3032.7	2869.9	2580.4	2368.2	2279.6
35°	2905.5	2725.2	2414.3	2191.5	2113.5
37.5°	2781.8	2587.1	2258.6	2014.6	1926.4
40°	2650.9	2439.0	2095.9	1845.0	1753.2
42.5°	2516.6	2290.5	1933.6	1671.8	1583.6
45°	2375.3	2138.3	1767.4	1516.2	1431.4
47.5°	2241.1	1990.2	1608.4	1357.1	1279.5
50°	2092.5	1841.6	1452.7	1208.7	1134.8
52.5°	1947.4	1682.3	1304.3	1071.0	1003.9
55°	1806.0	1530.4	1148.6	936.8	869.6
57.5°	1661.3	1378.5	1011.1	813.0	756.4
60°	1512.8	1230.0	865.9	685.9	629.3
62.5°	1368.0	1085.2	742.1	572.7	544.5
65°	1219.5	933.0	615.0	495.0	484.1
67.5°	1078.2	791.6	495.0	434.6	424.1
70°	929.6	654.0	409.8	374.6	360.4
72.5°	788.2	526.5	342.8	314.6	307.5
75°	650.3	402.8	282.7	258.0	254.6
77.5°	512.7	286.1	222.7	208.5	201.4
80°	385.1	205.2	169.5	155.6	155.6
82.5°	268.5	138.0	116.6	109.5	109.5
85°	151.9	77.6	67.1	67.1	67.1
87.5°	56.6	28.2	28.2	24.8	24.8
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	16.44	17.96	16.81	18.28	18.59	12.40	13.92	12.77	14.24	14.55
	3H	18.21	19.57	18.58	19.90	20.26	13.67	15.03	14.04	15.36	15.72
	4H	18.87	20.15	19.27	20.50	20.88	14.17	15.45	14.57	15.80	16.18
	6H	19.36	20.54	19.77	20.91	21.30	14.55	15.73	14.96	16.10	16.49
	8H	19.53	20.65	19.95	21.04	21.44	14.67	15.80	15.10	16.19	16.59
	12H	19.63	20.71	20.06	21.09	21.52	14.75	15.83	15.19	16.22	16.64
4H	2H	16.55	17.83	16.94	18.17	18.55	13.10	14.38	13.50	14.73	15.11
	3H	18.48	19.54	18.89	19.94	20.34	14.54	15.60	14.95	16.00	16.40
	4H	19.23	20.18	19.66	20.60	21.04	15.14	16.10	15.57	16.51	16.95
	6H	19.82	20.65	20.28	21.09	21.55	15.63	16.46	16.09	16.90	17.36
	8H	20.03	20.81	20.50	21.26	21.72	15.79	16.57	16.25	17.01	17.48
	12H	20.19	20.88	20.67	21.36	21.83	15.91	16.60	16.39	17.08	17.55
8H	4H	19.25	20.03	19.72	20.47	20.94	15.49	16.27	15.96	16.71	17.18
	6H	19.89	20.53	20.39	21.02	21.50	16.08	16.72	16.58	17.21	17.69
	8H	20.14	20.72	20.65	21.23	21.71	16.30	16.88	16.81	17.39	17.88
	12H	20.34	20.85	20.85	21.35	21.91	16.48	16.99	16.99	17.48	18.05
12H	4H	19.24	19.93	19.72	20.41	20.88	15.54	16.23	16.02	16.71	17.18
	6H	19.87	20.45	20.38	20.96	21.45	16.14	16.72	16.66	17.23	17.72
	8H	20.15	20.66	20.66	21.16	21.72	16.42	16.93	16.93	17.42	17.98

END OF REPORT