

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: P931019

Luminaire Tested: DFN2DS-SQ3F0-100DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931019
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-SQ3F0-100DS927-FLL
Description: 3 foot, Square Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

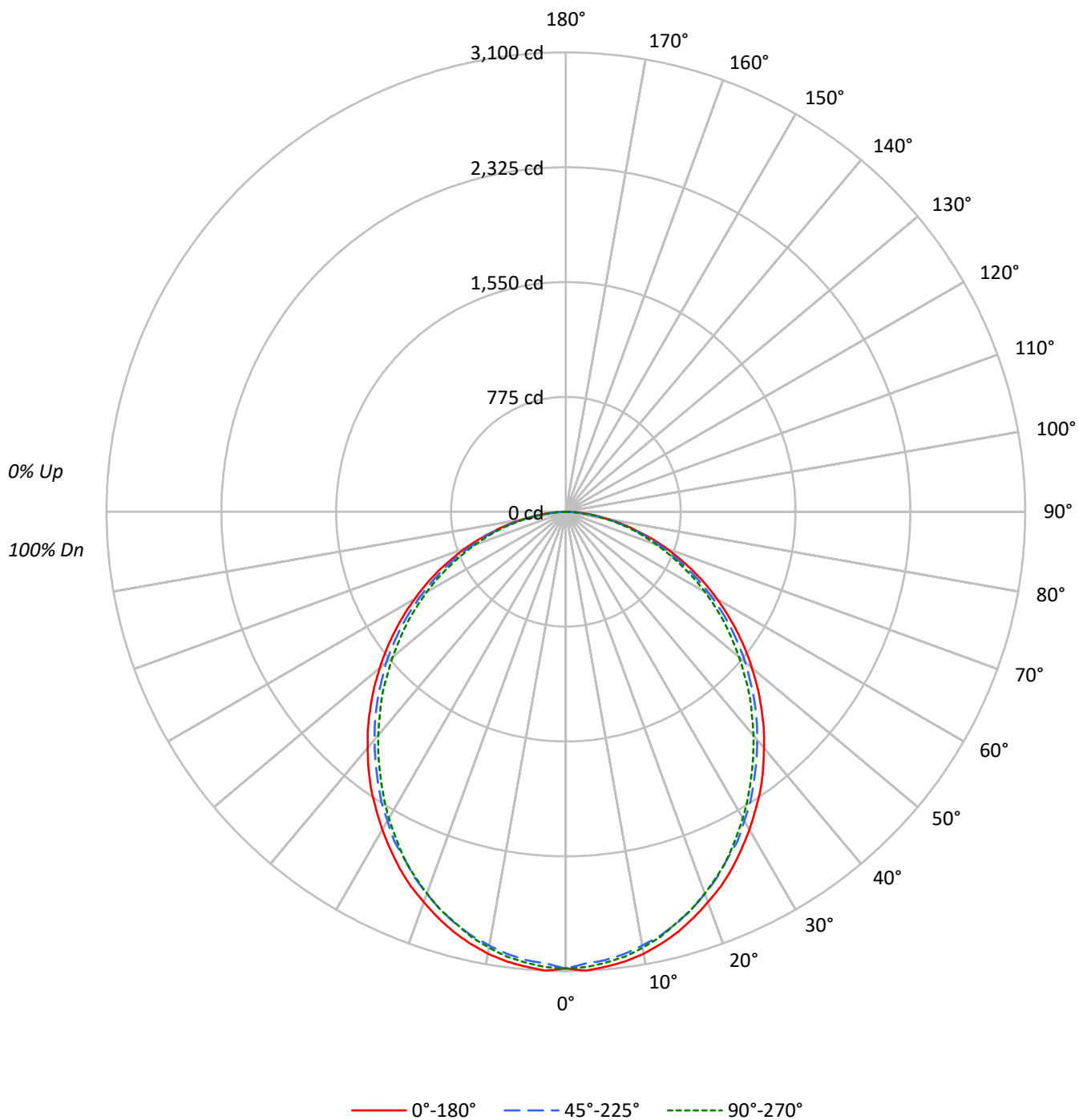
Lumens per Lamp: N/A
Luminaire Lumens: 7840.8 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.06' x L: 3.06' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	3531	3531	3531
5°	3545	3494	3514
10°	3524	3458	3475
15°	3480	3413	3410
20°	3418	3346	3342
25°	3357	3263	3263
30°	3278	3188	3160
35°	3204	3096	3051
40°	3112	3005	2948
45°	3021	2914	2843
50°	2921	2821	2720
55°	2818	2711	2611
60°	2702	2581	2485
65°	2579	2451	2338
70°	2422	2293	2185
75°	2203	2111	2060
80°	1956	1896	1799
85°	1595	1521	1365

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3021 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.1	3.7
10°-20°	816.1	10.4
20°-30°	1199.3	15.3
30°-40°	1392.9	17.8
40°-50°	1391.2	17.7
50°-60°	1213.1	15.5
60°-70°	896.8	11.4
70°-80°	507.4	6.5
80°-90°	133.9	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°	2305.5	29.4
0°-40°	3698.4	47.2
0°-60°	6302.7	80.4
0°-90°	7840.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7840.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3082	3082	3082	3082	3082	
5°	3082	3070	3037	3061	3055	293
15°	2934	2916	2877	2889	2875	826
25°	2655	2632	2581	2587	2581	1222
35°	2291	2261	2214	2196	2181	1430
45°	1864	1843	1799	1766	1754	1439
55°	1411	1393	1357	1322	1307	1261
65°	951	934	904	877	862	941
75°	498	492	477	459	465	531
85°	121	119	116	107	104	143
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3081.8	3081.8	3081.8	3081.8	3081.8
2.5°	3099.7	3084.8	3052.1	3081.8	3076.0
5°	3081.8	3070.1	3037.4	3061.0	3055.3
7.5°	3061.0	3043.3	3010.6	3034.5	3028.6
10°	3028.6	3007.9	2972.3	2995.9	2987.1
12.5°	2983.9	2966.4	2930.8	2945.6	2939.6
15°	2933.6	2916.1	2877.3	2889.3	2874.6
17.5°	2871.4	2853.8	2815.1	2829.9	2815.1
20°	2803.1	2785.5	2744.0	2752.8	2741.2
22.5°	2735.3	2708.6	2669.8	2669.8	2663.9
25°	2655.1	2631.5	2581.2	2586.8	2581.2
27.5°	2566.1	2545.3	2507.0	2498.2	2483.4
30°	2477.5	2453.5	2409.2	2400.4	2388.4
32.5°	2382.5	2364.9	2317.4	2299.5	2287.5
35°	2290.7	2261.2	2213.6	2195.7	2180.9
37.5°	2186.9	2160.2	2112.7	2092.0	2077.2
40°	2080.3	2056.4	2009.0	1982.6	1970.7
42.5°	1976.6	1952.7	1905.6	1875.7	1858.1
45°	1864.1	1843.3	1798.6	1766.2	1754.4
47.5°	1754.4	1733.6	1686.1	1653.4	1635.8
50°	1638.6	1623.8	1582.3	1540.8	1526.1
52.5°	1526.1	1505.4	1466.9	1434.3	1413.6
55°	1410.7	1392.8	1357.3	1321.7	1307.0
57.5°	1295.0	1280.2	1241.5	1206.1	1194.1
60°	1179.3	1167.6	1126.1	1093.4	1084.6
62.5°	1066.7	1046.0	1016.5	986.9	975.0
65°	951.4	933.5	903.9	877.1	862.4
67.5°	832.9	817.7	791.4	770.6	758.7
70°	723.1	711.1	684.4	663.7	652.1
72.5°	610.6	598.6	583.9	563.1	554.2
75°	497.7	492.1	476.9	459.4	465.3
77.5°	397.1	385.1	379.1	370.3	361.5
80°	296.4	293.4	287.3	278.5	272.6
82.5°	201.6	201.6	198.7	186.8	186.8
85°	121.3	118.6	115.7	106.6	103.8
87.5°	53.5	47.4	41.5	32.7	29.5
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	15.67	17.28	16.03	17.59	17.90	15.22	16.83	15.59	17.15	17.46
	3H	17.42	18.87	17.79	19.20	19.56	16.93	18.38	17.30	18.71	19.07
	4H	18.06	19.43	18.46	19.78	20.16	17.57	18.94	17.97	19.28	19.66
	6H	18.53	19.80	18.94	20.16	20.56	18.03	19.30	18.44	19.66	20.05
	8H	18.67	19.89	19.10	20.27	20.67	18.17	19.38	18.60	19.77	20.17
	12H	18.76	19.92	19.19	20.31	20.74	18.25	19.41	18.68	19.79	20.22
4H	2H	16.23	17.60	16.62	17.94	18.32	15.87	17.24	16.27	17.59	17.97
	3H	18.20	19.35	18.61	19.75	20.15	17.79	18.94	18.20	19.34	19.74
	4H	18.98	20.01	19.41	20.43	20.86	18.55	19.59	18.99	20.00	20.44
	6H	19.57	20.48	20.03	20.92	21.38	19.14	20.05	19.60	20.49	20.94
	8H	19.76	20.61	20.22	21.05	21.52	19.33	20.17	19.79	20.61	21.08
	12H	19.90	20.66	20.38	21.13	21.60	19.44	20.20	19.92	20.68	21.15
8H	4H	19.25	20.10	19.71	20.54	21.01	18.88	19.72	19.34	20.17	20.63
	6H	19.97	20.67	20.46	21.16	21.63	19.58	20.29	20.08	20.78	21.25
	8H	20.22	20.86	20.73	21.36	21.85	19.83	20.46	20.34	20.97	21.46
	12H	20.42	20.98	20.93	21.47	22.03	20.01	20.57	20.52	21.06	21.62
12H	4H	19.28	20.04	19.76	20.51	20.98	18.91	19.67	19.39	20.15	20.62
	6H	20.01	20.64	20.52	21.15	21.64	19.64	20.27	20.15	20.78	21.27
	8H	20.32	20.88	20.83	21.37	21.93	19.95	20.50	20.45	21.00	21.56