

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: P1056013

Luminaire Tested: S124R3DR-S350D840-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056013
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S350D840-X4F0-XX-UDD-FLL-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

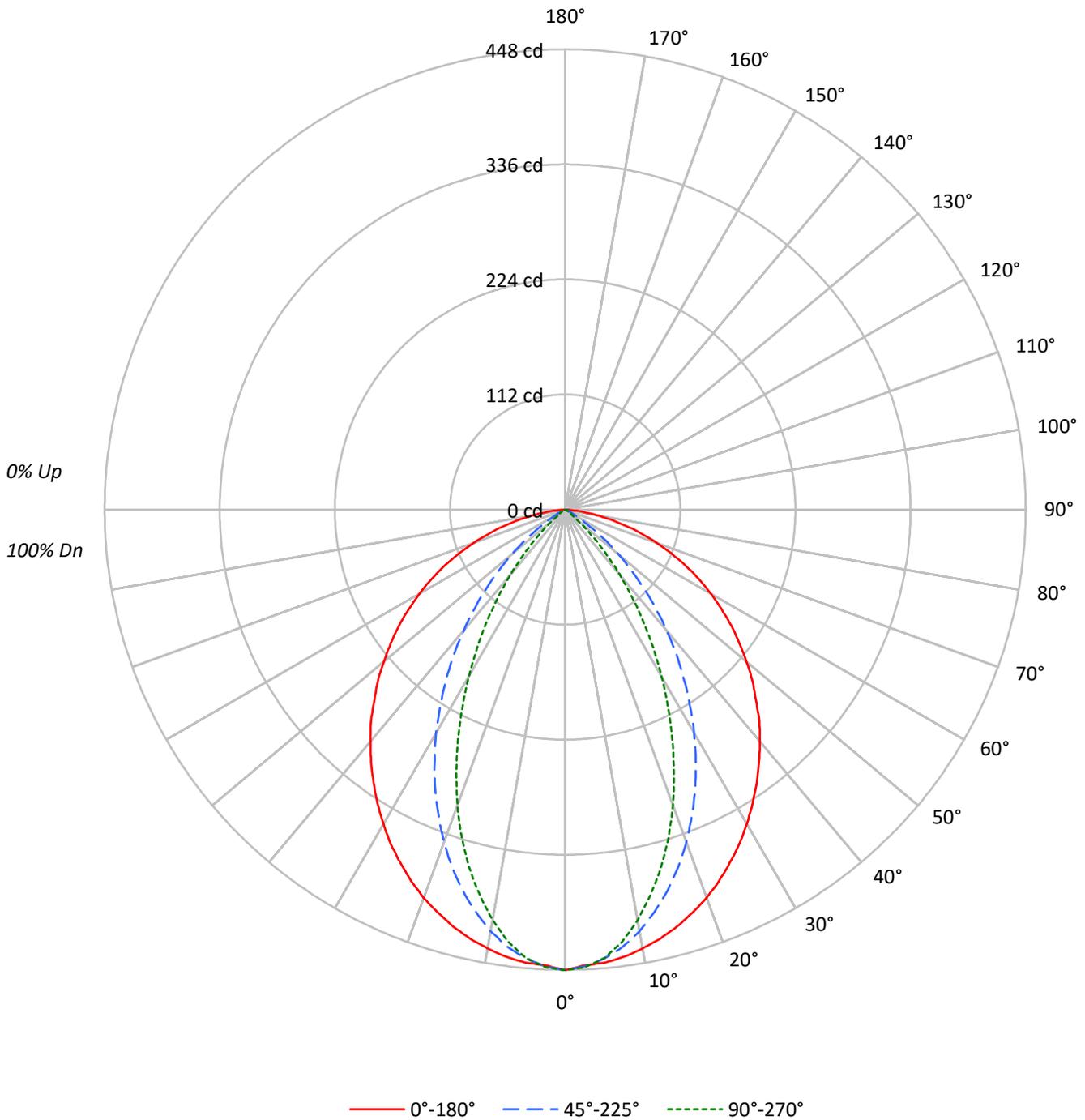
Lumens per Lamp: N/A
Luminaire Lumens: 626.6 lumens
Efficiency: N/A
Efficacy: 49.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64
5	84	74	66	61	83	73	66	61	71	65	60	69	64	60	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3964	3964	3964
5°	3928	3894	3889
10°	3895	3741	3642
15°	3846	3517	3299
20°	3784	3242	2883
25°	3700	2920	2406
30°	3608	2562	1911
35°	3506	2173	1424
40°	3399	1770	949
45°	3281	1352	523
50°	3168	926	144
55°	3043	501	96
60°	2891	156	55
65°	2703	100	27
70°	2443	47	10
75°	2101	14	0
80°	1589	0	0
85°	670	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3281 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.4	6.6
10°-20°	108.6	17.3
20°-30°	140.3	22.4
30°-40°	134.1	21.4
40°-50°	100.3	16.0
50°-60°	59.7	9.5
60°-70°	30.3	4.8
70°-80°	10.5	1.7
80°-90°	1.4	0.2
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°	290.3	46.3
0°-40°	424.4	67.7
0°-60°	584.4	93.3
0°-90°	626.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	626.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	448	448	448	448	448	
5°	443	446	439	436	438	42
15°	420	411	384	366	360	118
25°	379	353	299	260	247	175
35°	325	280	201	150	132	203
45°	262	201	108	58	42	203
55°	197	123	32	8	6	176
65°	129	50	5	2	1	128
75°	62	7	0	0	0	65
85°	7	0	0	0	0	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	448.3	448.3	448.3	448.3	448.3
2.5°	443.9	449.2	444.8	445.3	445.7
5°	442.6	446.1	438.7	436.5	438.2
7.5°	439.1	440.4	429.4	423.7	424.2
10°	433.8	432.5	416.7	407.0	405.7
12.5°	427.7	423.3	401.3	387.2	384.2
15°	420.2	411.4	384.2	366.1	360.4
17.5°	411.4	398.7	365.3	341.5	334.5
20°	402.2	384.6	344.6	315.2	306.4
22.5°	391.2	368.8	322.2	287.5	276.5
25°	379.3	353.0	299.3	259.8	246.6
27.5°	367.0	335.8	275.2	231.6	216.3
30°	353.4	317.8	251.0	203.1	187.2
32.5°	339.3	299.3	225.9	176.7	159.1
35°	324.8	280.0	201.3	149.9	131.9
37.5°	309.9	260.7	177.6	124.4	105.9
40°	294.5	240.9	153.4	100.2	82.2
42.5°	279.6	221.1	130.5	77.4	60.7
45°	262.4	201.3	108.1	57.6	41.8
47.5°	247.0	182.0	86.6	39.1	24.6
50°	230.3	161.3	67.3	22.9	10.5
52.5°	213.6	142.0	49.2	10.1	7.9
55°	197.4	122.6	32.5	7.5	6.2
57.5°	180.2	103.3	17.6	5.7	4.4
60°	163.5	84.4	8.8	4.4	3.1
62.5°	146.4	66.4	7.0	2.6	1.8
65°	129.2	49.7	4.8	1.8	1.3
67.5°	112.1	33.8	3.1	0.9	0.4
70°	94.5	20.7	1.8	0.4	0.4
72.5°	77.8	10.5	0.9	0.4	0.4
75°	61.5	6.6	0.4	0.4	0.0
77.5°	45.7	3.5	0.4	0.4	0.0
80°	31.2	1.3	0.0	0.0	0.0
82.5°	18.0	0.4	0.0	0.0	0.0
85°	6.6	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)