

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: P1055655

Luminaire Tested: S123R3DR-S560D950-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055655
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S560D950-X4F0-XX-UDD-FLL-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

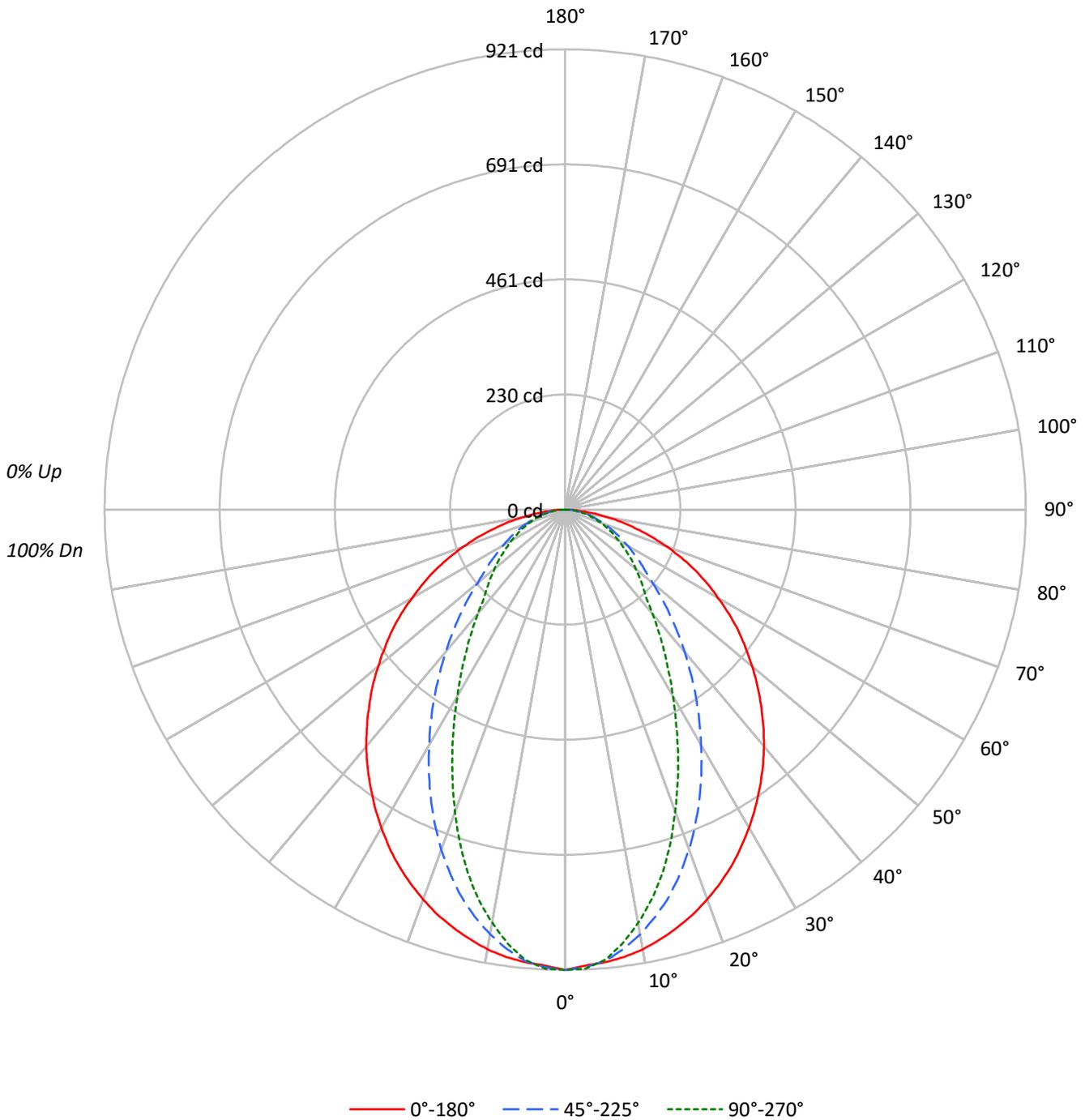
Lumens per Lamp: N/A
Luminaire Lumens: 1615.4 lumens
Efficiency: N/A
Efficacy: 84.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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

TEST NUMBER: P1055655

CATALOG NUMBER: S123R3DR-S560D950-X4F0-XX-UDD-FLL-W

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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11105	11105	11105
5°	11006	10981	10955
10°	10939	10568	10281
15°	10809	10009	9390
20°	10652	9290	8256
25°	10467	8459	7102
30°	10234	7568	6004
35°	9988	6692	5070
40°	9737	5844	4260
45°	9444	5038	3760
50°	9149	4290	3449
55°	8877	3823	3187
60°	8505	3455	2973
65°	8156	3164	2790
70°	7600	2915	2623
75°	6806	2697	2469
80°	5832	2486	2298
85°	4095	2282	2186

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9444 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	5.3
10°-20°	225.9	14.0
20°-30°	297.6	18.4
30°-40°	302.0	18.7
40°-50°	262.5	16.3
50°-60°	205.7	12.7
60°-70°	139.7	8.7
70°-80°	75.7	4.7
80°-90°	20.8	1.3
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°	608.9	37.7
0°-40°	910.9	56.4
0°-60°	1379.1	85.4
0°-90°	1615.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1615.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	921	921	921	921	921	
5°	909	920	907	899	905	86
15°	866	854	802	763	752	244
25°	787	739	636	557	534	362
35°	679	598	455	368	344	424
45°	554	444	296	228	220	427
55°	422	294	182	155	152	377
65°	286	158	111	99	98	282
75°	146	73	58	54	53	156
85°	30	18	16	15	16	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	921.1	921.1	921.1	921.1	921.1
2.5°	913.5	925.2	916.3	917.0	919.7
5°	909.4	920.4	907.3	899.0	905.2
7.5°	903.2	911.4	887.3	874.2	876.3
10°	893.5	896.3	863.2	842.6	839.8
12.5°	880.4	875.6	834.3	804.0	799.2
15°	866.0	853.6	801.9	762.6	752.3
17.5°	849.4	828.8	764.0	715.8	699.9
20°	830.2	801.2	724.1	662.7	643.5
22.5°	809.5	772.3	680.7	608.3	588.3
25°	786.8	739.2	635.9	556.7	533.9
27.5°	761.9	706.1	590.4	505.7	480.2
30°	735.1	671.7	543.6	456.1	431.3
32.5°	707.5	635.2	498.8	409.9	385.8
35°	678.6	598.0	454.7	367.9	344.5
37.5°	649.0	560.1	412.0	327.9	305.9
40°	618.7	521.5	371.3	290.7	270.7
42.5°	586.3	482.9	332.1	255.6	240.4
45°	553.9	444.4	295.5	228.0	220.5
47.5°	521.5	405.1	261.1	208.7	201.9
50°	487.8	367.2	228.7	190.8	183.9
52.5°	454.7	330.0	201.9	173.6	168.8
55°	422.3	293.5	181.9	155.0	151.6
57.5°	388.6	257.7	161.9	140.5	136.4
60°	352.7	223.2	143.3	125.4	123.3
62.5°	320.3	190.8	126.8	112.3	110.2
65°	285.9	158.5	110.9	99.2	97.8
67.5°	250.8	131.6	96.4	86.8	86.1
70°	215.6	110.9	82.7	75.1	74.4
72.5°	181.2	91.6	69.6	64.8	63.4
75°	146.1	73.0	57.9	53.7	53.0
77.5°	114.4	56.5	46.2	43.4	42.7
80°	84.0	42.0	35.8	33.8	33.1
82.5°	55.1	28.9	25.5	24.1	24.1
85°	29.6	17.9	16.5	15.2	15.8
87.5°	10.3	7.6	7.6	6.9	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)