

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: P1059300

Luminaire Tested: S123RDR-S560D930-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059300
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D930-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

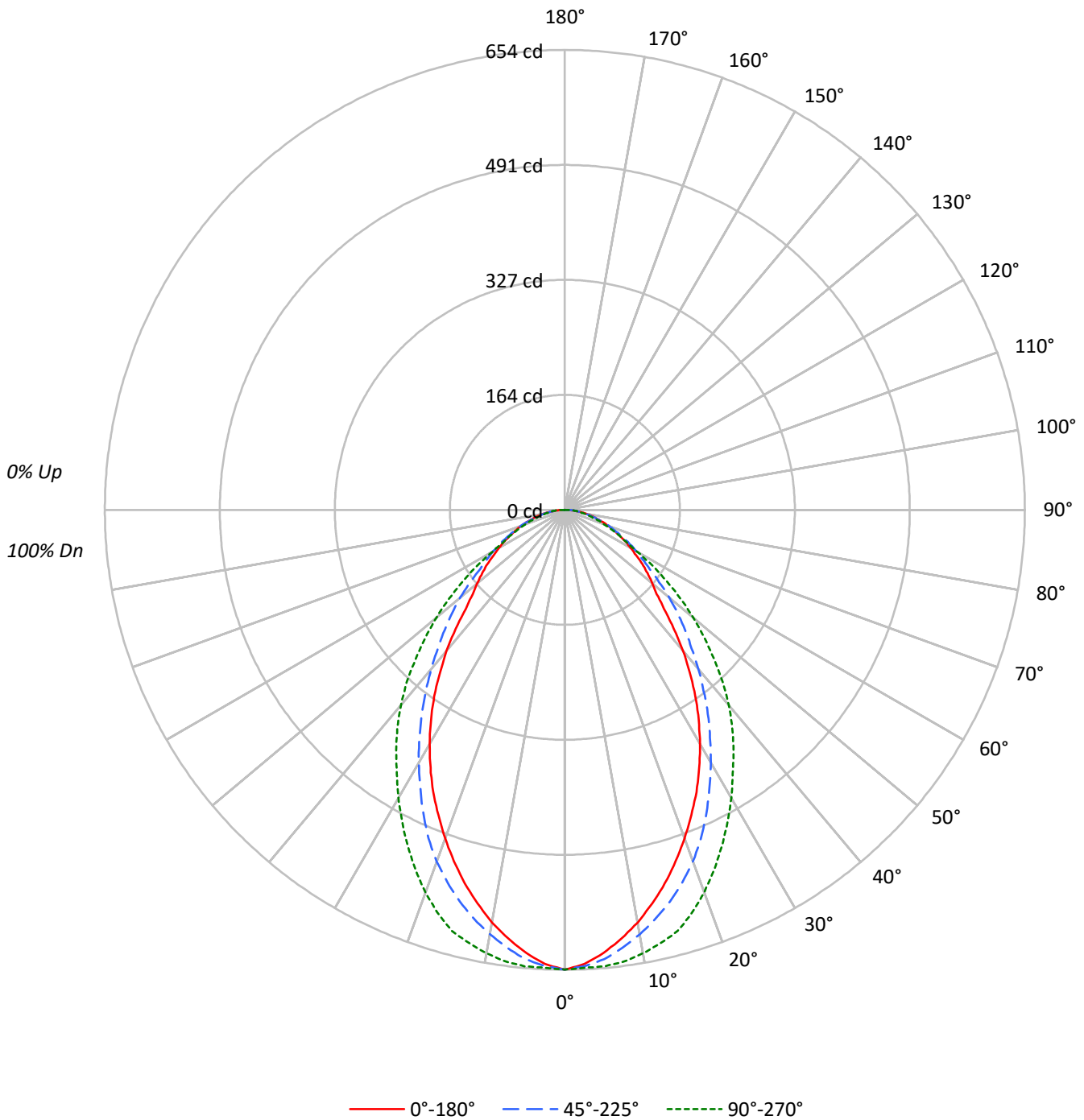
Lumens per Lamp: N/A
Luminaire Lumens: 1148.9 lumens
Efficiency: N/A
Efficacy: 58.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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	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	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7677	7677	7677
5°	7455	7562	7681
10°	7105	7307	7635
15°	6683	7012	7538
20°	6216	6652	7235
25°	5737	6167	6838
30°	5211	5631	6416
35°	4637	5082	5993
40°	4002	4528	5555
45°	3308	4009	4980
50°	2970	3537	4348
55°	2754	3018	3605
60°	2536	2748	2762
65°	2362	2487	2314
70°	2221	2259	2029
75°	2092	2019	1788
80°	1981	1826	1677
85°	1900	2048	1900

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4980 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.6	5.3
10°-20°	163.2	14.2
20°-30°	220.7	19.2
30°-40°	226.8	19.7
40°-50°	190.5	16.6
50°-60°	136.6	11.9
60°-70°	86.9	7.6
70°-80°	47.8	4.2
80°-90°	15.9	1.4
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°	444.4	38.7
0°-40°	671.2	58.4
0°-60°	998.3	86.9
0°-90°	1148.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1148.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	654	654	654	654	654	
5°	632	644	642	646	652	59
15°	550	565	577	602	620	154
25°	443	460	476	502	528	203
35°	324	341	354	386	418	201
45°	199	217	241	276	300	157
55°	134	137	147	167	176	120
65°	85	90	90	84	83	85
75°	46	51	44	41	39	49
85°	14	15	15	16	14	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	653.8	653.8	653.8	653.8	653.8
2.5°	646.5	655.5	649.3	649.9	651.6
5°	632.5	643.7	641.5	646.0	651.6
7.5°	615.0	627.4	628.0	638.7	647.7
10°	595.9	608.8	612.8	629.1	640.3
12.5°	573.4	587.4	595.9	616.1	630.8
15°	549.7	564.9	576.8	601.5	620.1
17.5°	523.9	540.2	555.4	581.8	601.0
20°	497.4	514.9	532.3	557.1	579.0
22.5°	469.8	487.9	505.9	530.1	554.2
25°	442.8	459.7	476.0	501.9	527.8
27.5°	413.6	431.0	445.1	473.8	500.8
30°	384.3	401.8	415.3	445.1	473.2
32.5°	353.9	371.9	384.3	415.3	444.5
35°	323.5	341.0	354.5	386.0	418.1
37.5°	291.5	310.6	324.1	359.6	391.1
40°	261.1	279.1	295.4	332.5	362.4
42.5°	229.6	248.1	266.7	305.0	332.5
45°	199.2	216.6	241.4	276.3	299.9
47.5°	177.2	188.5	217.2	246.5	269.0
50°	162.6	167.1	193.6	219.4	238.0
52.5°	148.0	151.4	169.4	193.0	207.1
55°	134.5	137.3	147.4	167.1	176.1
57.5°	119.9	122.7	131.1	142.4	147.4
60°	108.0	110.3	117.0	118.7	117.6
62.5°	96.2	99.6	103.0	99.0	97.3
65°	85.0	90.0	89.5	84.4	83.3
67.5°	74.8	79.9	77.1	72.0	70.3
70°	64.7	69.8	65.8	60.8	59.1
72.5°	55.1	60.8	54.6	50.1	49.0
75°	46.1	50.6	44.5	41.1	39.4
77.5°	37.7	41.1	35.4	32.6	31.5
80°	29.3	31.5	27.0	25.3	24.8
82.5°	21.4	22.5	19.7	20.8	20.3
85°	14.1	14.6	15.2	15.8	14.1
87.5°	6.8	9.6	9.6	9.0	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)