

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: P1059318

Luminaire Tested: S123RDR-S560D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059318
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-S560D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

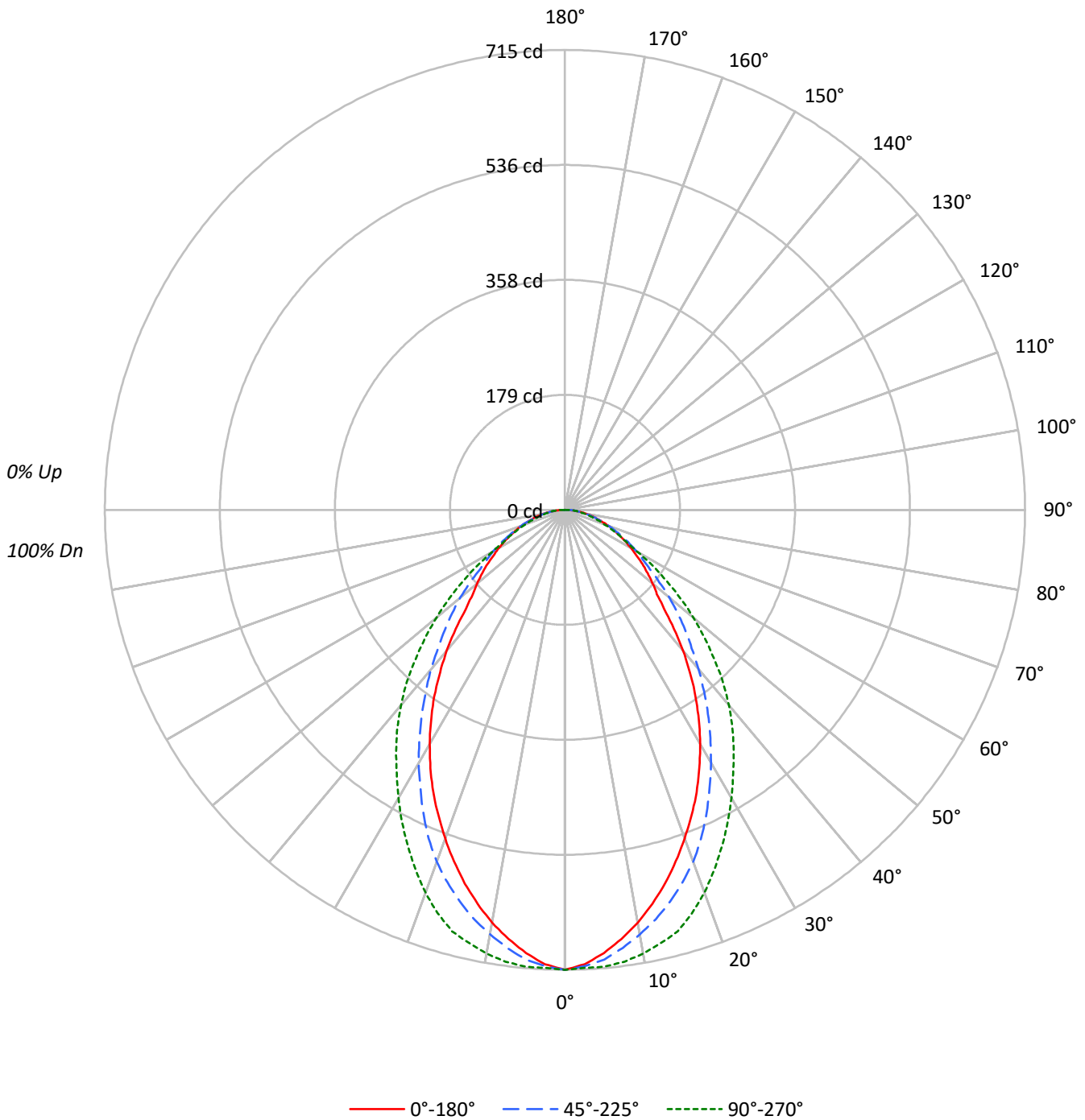
Lumens per Lamp: N/A
Luminaire Lumens: 1256.6 lumens
Efficiency: N/A
Efficacy: 64.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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°	8397	8397	8397
5°	8153	8270	8401
10°	7771	7991	8351
15°	7310	7668	8245
20°	6798	7275	7914
25°	6275	6745	7480
30°	5699	6158	7018
35°	5073	5558	6555
40°	4378	4953	6075
45°	3619	4384	5447
50°	3250	3867	4755
55°	3011	3300	3943
60°	2776	3006	3020
65°	2581	2720	2531
70°	2431	2472	2218
75°	2291	2205	1955
80°	2164	1995	1833
85°	2075	2237	2075

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5447 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.2	5.3
10°-20°	178.4	14.2
20°-30°	241.4	19.2
30°-40°	248.1	19.7
40°-50°	208.3	16.6
50°-60°	149.4	11.9
60°-70°	95.1	7.6
70°-80°	52.3	4.2
80°-90°	17.4	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°	486.1	38.7
0°-40°	734.1	58.4
0°-60°	1091.8	86.9
0°-90°	1256.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1256.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	715	715	715	715	715	
5°	692	704	702	706	713	65
15°	601	618	631	658	678	168
25°	484	503	521	549	577	222
35°	354	373	388	422	457	220
45°	218	237	264	302	328	172
55°	147	150	161	183	193	131
65°	93	98	98	92	91	93
75°	50	55	49	45	43	54
85°	15	16	17	17	15	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	715.1	715.1	715.1	715.1	715.1
2.5°	707.1	717.0	710.2	710.8	712.7
5°	691.7	704.0	701.6	706.5	712.7
7.5°	672.7	686.2	686.8	698.5	708.4
10°	651.7	665.9	670.2	688.0	700.4
12.5°	627.1	642.5	651.7	673.9	689.9
15°	601.3	617.9	630.8	657.9	678.2
17.5°	573.0	590.8	607.4	636.3	657.3
20°	544.0	563.1	582.2	609.3	633.3
22.5°	513.9	533.6	553.3	579.7	606.2
25°	484.3	502.8	520.6	549.0	577.3
27.5°	452.3	471.4	486.8	518.2	547.7
30°	420.3	439.4	454.2	486.8	517.6
32.5°	387.1	406.8	420.3	454.2	486.2
35°	353.9	372.9	387.7	422.2	457.3
37.5°	318.8	339.7	354.5	393.3	427.7
40°	285.6	305.3	323.1	363.7	396.3
42.5°	251.1	271.4	291.7	333.6	363.7
45°	217.9	236.9	264.0	302.2	328.0
47.5°	193.9	206.2	237.6	269.6	294.2
50°	177.9	182.8	211.7	240.0	260.3
52.5°	161.9	165.5	185.2	211.1	226.5
55°	147.1	150.2	161.2	182.8	192.6
57.5°	131.1	134.2	143.4	155.7	161.2
60°	118.2	120.6	128.0	129.9	128.6
62.5°	105.2	108.9	112.6	108.3	106.5
65°	92.9	98.5	97.9	92.3	91.1
67.5°	81.9	87.4	84.3	78.8	76.9
70°	70.8	76.3	72.0	66.5	64.6
72.5°	60.3	66.5	59.7	54.8	53.5
75°	50.5	55.4	48.6	44.9	43.1
77.5°	41.2	44.9	38.8	35.7	34.5
80°	32.0	34.5	29.5	27.7	27.1
82.5°	23.4	24.6	21.5	22.8	22.2
85°	15.4	16.0	16.6	17.2	15.4
87.5°	7.4	10.5	10.5	9.8	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)