

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: P1059303

Luminaire Tested: S123RDR-S560D935-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059303
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D935-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

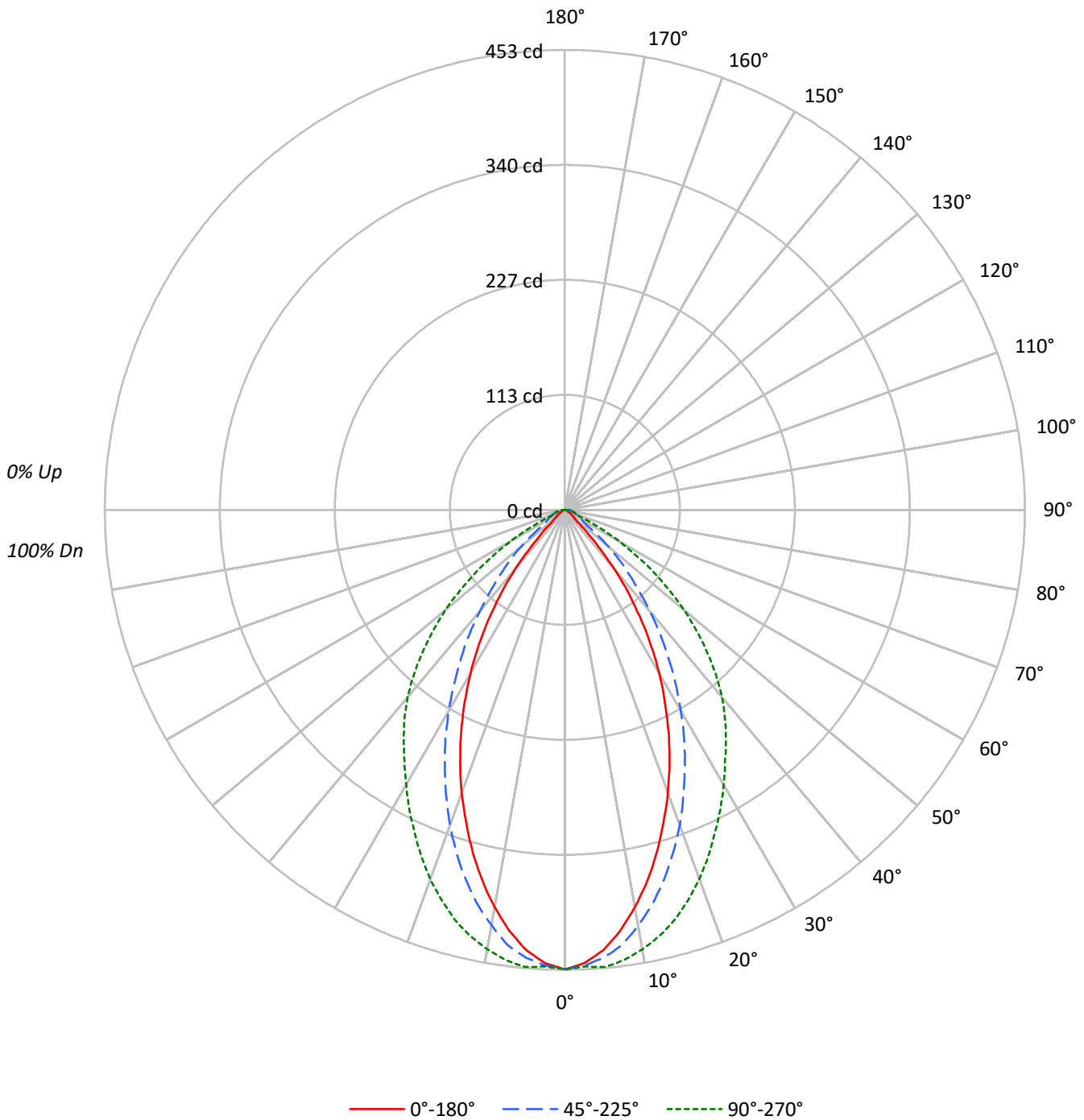
Lumens per Lamp: N/A
Luminaire Lumens: 543.4 lumens
Efficiency: N/A
Efficacy: 27.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47				
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5315	5315	5315
5°	5132	5216	5328
10°	4737	4957	5240
15°	4251	4584	5083
20°	3709	4132	4838
25°	3129	3621	4539
30°	2517	3097	4241
35°	1842	2549	3965
40°	1148	1988	3693
45°	435	1481	3290
50°	206	1021	2802
55°	158	561	2168
60°	113	474	1426
65°	83	414	595
70°	82	388	388
75°	109	404	404
80°	162	480	440
85°	323	795	647

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3290 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.5	7.6
10°-20°	106.5	19.6
20°-30°	131.9	24.3
30°-40°	118.2	21.8
40°-50°	77.5	14.3
50°-60°	38.8	7.1
60°-70°	15.1	2.8
70°-80°	8.5	1.6
80°-90°	5.2	1.0
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°	280.0	51.5
0°-40°	398.2	73.3
0°-60°	514.5	94.7
0°-90°	543.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	543.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	453	453	453	453	453	
5°	435	442	442	447	452	40
15°	350	364	377	402	418	97
25°	242	256	280	319	350	110
35°	128	146	178	231	277	80
45°	26	42	89	153	198	25
55°	8	10	27	75	106	7
65°	3	9	15	20	21	3
75°	2	9	9	9	9	3
85°	2	6	6	6	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	452.6	452.6	452.6	452.6	452.6
2.5°	446.7	453.2	449.0	449.6	450.2
5°	435.4	442.5	442.5	447.3	452.0
7.5°	418.1	426.4	432.4	440.7	447.3
10°	397.3	407.4	415.7	430.6	439.5
12.5°	374.7	387.2	397.9	417.5	430.0
15°	349.7	364.0	377.1	402.0	418.1
17.5°	322.9	337.2	354.5	383.6	403.2
20°	296.8	311.1	330.7	363.4	387.2
22.5°	269.4	284.3	305.1	341.4	369.3
25°	241.5	256.3	279.5	319.4	350.3
27.5°	213.5	228.4	254.6	298.0	331.9
30°	185.6	200.4	228.4	274.8	312.8
32.5°	157.6	173.7	202.8	253.4	293.8
35°	128.5	145.7	177.8	231.4	276.6
37.5°	101.7	117.8	154.0	212.3	259.3
40°	74.9	92.2	129.7	193.9	240.9
42.5°	48.8	67.2	107.6	173.7	220.1
45°	26.2	42.2	89.2	152.9	198.1
47.5°	14.3	23.2	72.0	130.8	175.5
50°	11.3	13.1	55.9	111.8	153.4
52.5°	9.5	10.7	39.8	94.0	129.1
55°	7.7	9.5	27.4	74.9	105.9
57.5°	6.5	8.3	21.4	58.3	82.7
60°	4.8	7.1	20.2	42.8	60.7
62.5°	3.6	7.7	17.8	29.7	39.8
65°	3.0	8.9	14.9	19.6	21.4
67.5°	2.4	9.5	13.1	12.5	12.5
70°	2.4	8.9	11.3	10.7	11.3
72.5°	2.4	9.5	10.1	9.5	10.1
75°	2.4	8.9	8.9	8.9	8.9
77.5°	2.4	8.3	8.3	7.7	7.7
80°	2.4	7.1	7.1	7.1	6.5
82.5°	2.4	6.5	6.5	6.5	5.4
85°	2.4	5.9	5.9	5.9	4.8
87.5°	1.8	5.4	5.9	5.4	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)