

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: P1059313

Luminaire Tested: S123RDR-S560D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059313
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D940-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

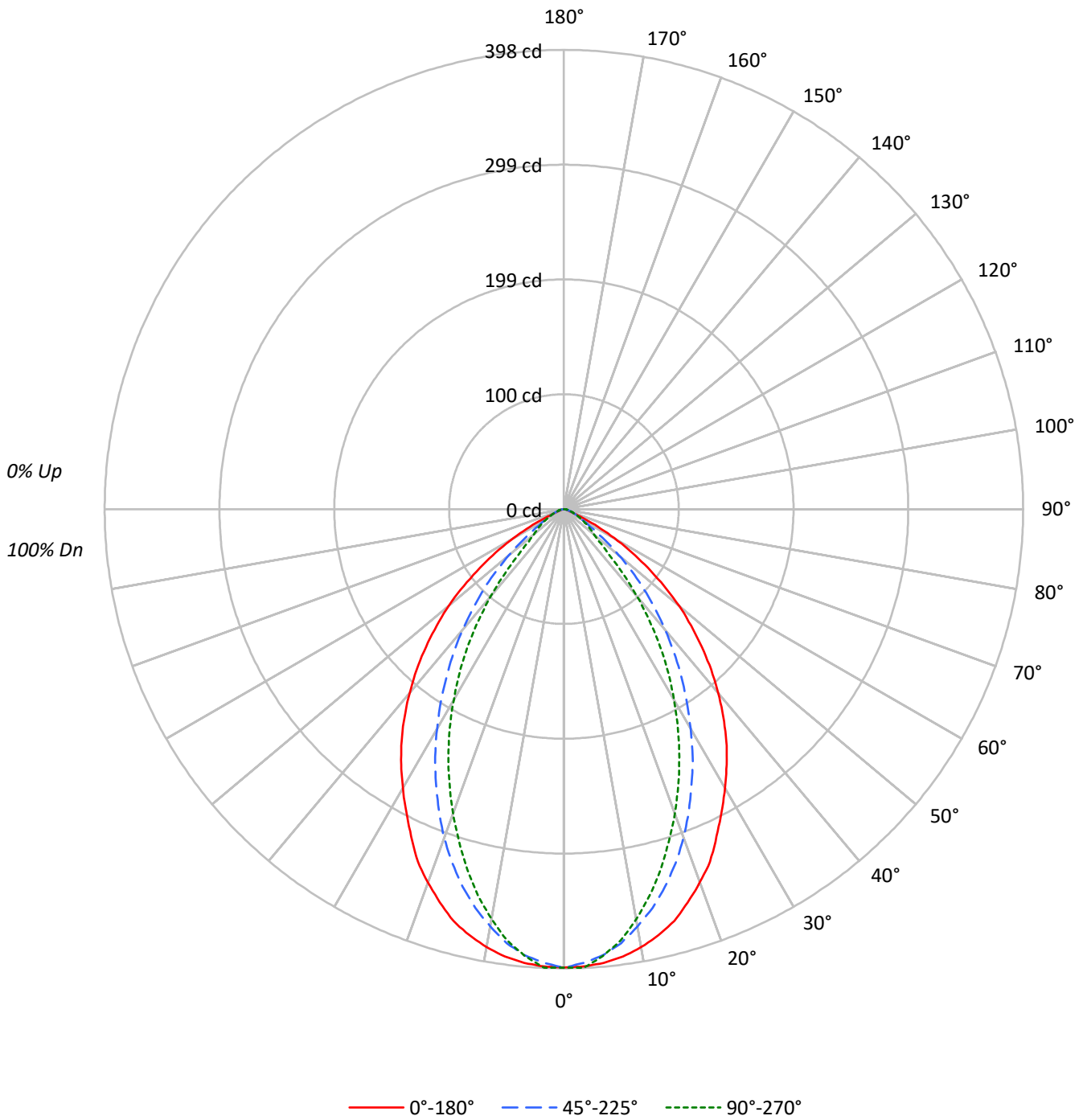
Lumens per Lamp: N/A
Luminaire Lumens: 512.9 lumens
Efficiency: N/A
Efficacy: 26.2 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4665	4665	4665
5°	4654	4575	4582
10°	4598	4378	4304
15°	4493	4120	3933
20°	4304	3789	3513
25°	4055	3395	3068
30°	3786	2978	2586
35°	3518	2539	2080
40°	3187	2092	1508
45°	2808	1624	908
50°	2382	1134	617
55°	1814	680	516
60°	1184	434	404
65°	495	325	325
70°	168	233	254
75°	141	168	195
80°	81	122	169
85°	81	81	162

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2808 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.7	7.2
10°-20°	96.0	18.7
20°-30°	123.1	24.0
30°-40°	115.6	22.5
40°-50°	80.6	15.7
50°-60°	41.7	8.1
60°-70°	14.3	2.8
70°-80°	4.1	0.8
80°-90°	0.8	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°	255.9	49.9
0°-40°	371.4	72.4
0°-60°	493.7	96.3
0°-90°	512.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	512.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	397	397	397	397	397	
5°	395	394	388	390	389	37
15°	370	360	339	328	324	104
25°	313	293	262	244	237	144
35°	245	215	177	154	145	153
45°	169	138	98	68	55	130
55°	89	66	33	26	25	80
65°	18	15	12	11	12	21
75°	3	3	4	4	4	3
85°	1	1	1	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	397.3	397.3	397.3	397.3	397.3
2.5°	396.7	397.3	393.6	397.3	397.9
5°	394.8	394.2	388.1	389.9	388.7
7.5°	391.1	389.3	379.5	377.0	377.0
10°	385.6	381.9	367.2	362.9	361.0
12.5°	378.2	373.3	354.2	346.3	343.2
15°	369.6	360.4	338.9	327.8	323.5
17.5°	357.3	345.0	321.7	308.7	302.0
20°	344.4	329.0	303.2	287.8	281.1
22.5°	330.9	312.4	282.9	266.3	258.9
25°	313.0	293.4	262.0	244.2	236.8
27.5°	295.8	274.9	241.7	221.4	214.0
30°	279.2	254.6	219.6	199.9	190.7
32.5°	262.6	234.9	198.6	177.1	168.5
35°	245.4	215.3	177.1	154.4	145.1
37.5°	226.9	196.2	156.8	132.2	121.2
40°	207.9	175.9	136.5	108.9	98.4
42.5°	188.8	157.4	116.2	87.9	75.6
45°	169.1	138.4	97.8	67.7	54.7
47.5°	149.4	119.3	80.0	49.2	41.2
50°	130.4	101.5	62.1	36.3	33.8
52.5°	109.5	84.3	46.7	30.1	29.5
55°	88.6	66.4	33.2	25.8	25.2
57.5°	70.1	51.7	24.0	21.5	20.9
60°	50.4	36.9	18.5	17.8	17.2
62.5°	33.2	25.2	14.8	14.1	14.1
65°	17.8	15.4	11.7	11.1	11.7
67.5°	7.4	8.6	8.6	9.2	9.2
70°	4.9	5.5	6.8	7.4	7.4
72.5°	3.7	4.3	4.9	5.5	5.5
75°	3.1	3.1	3.7	4.3	4.3
77.5°	1.8	2.5	2.5	3.1	3.7
80°	1.2	1.8	1.8	2.5	2.5
82.5°	0.6	1.2	1.2	1.8	1.8
85°	0.6	0.6	0.6	0.6	1.2
87.5°	0.0	0.0	0.0	0.0	0.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)