

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: P1059265

Luminaire Tested: S123RDR-S560D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059265
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D840-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

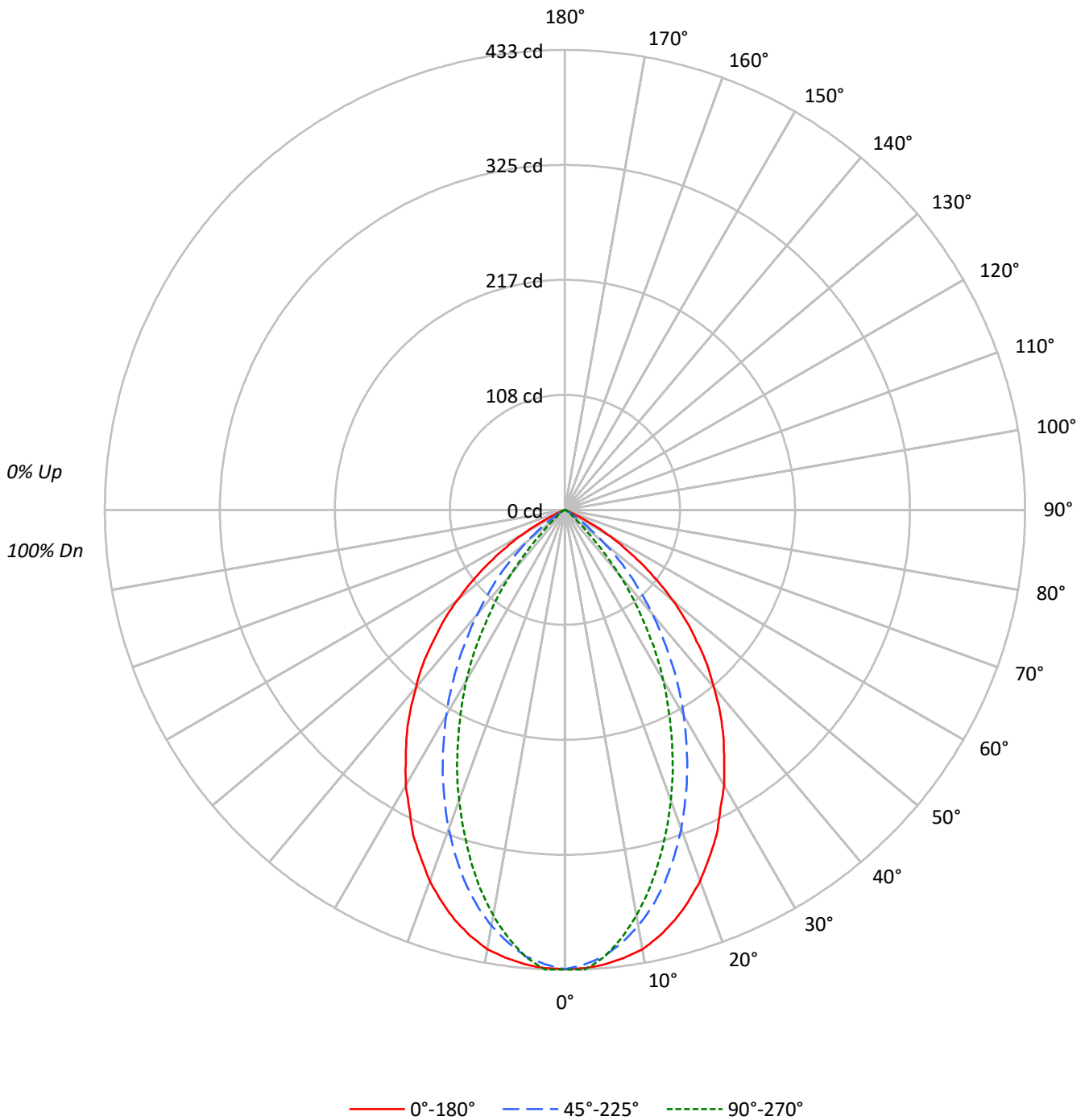
Lumens per Lamp: N/A
Luminaire Lumens: 493.6 lumens
Efficiency: N/A
Efficacy: 25.2 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5079	5079	5079
5°	5065	4975	4982
10°	5008	4742	4625
15°	4860	4412	4158
20°	4647	3995	3638
25°	4377	3528	3077
30°	4061	3032	2512
35°	3724	2506	1866
40°	3342	1964	1196
45°	2914	1435	497
50°	2417	853	190
55°	1783	356	143
60°	1080	132	82
65°	289	78	39
70°	0	24	24
75°	0	0	32
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2914 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.8	8.1
10°-20°	102.8	20.8
20°-30°	128.1	25.9
30°-40°	114.5	23.2
40°-50°	72.3	14.6
50°-60°	30.3	6.1
60°-70°	5.7	1.2
70°-80°	0.2	0.0
80°-90°	0.0	0.0
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°	270.6	54.8
0°-40°	385.1	78.0
0°-60°	487.7	98.8
0°-90°	493.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	493.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	432	432	432	432	432	
5°	430	429	422	423	423	41
15°	400	390	363	348	342	112
25°	338	311	272	249	238	155
35°	260	222	175	144	130	162
45°	176	136	86	46	30	135
55°	87	60	17	7	7	78
65°	10	8	3	1	1	15
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	432.5	432.5	432.5	432.5	432.5
2.5°	431.8	432.5	428.3	432.5	433.2
5°	429.7	429.0	422.1	423.4	422.7
7.5°	425.5	423.4	410.9	408.1	406.7
10°	420.0	414.4	397.7	390.7	387.9
12.5°	410.9	403.2	381.7	370.5	366.3
15°	399.8	390.0	362.9	347.5	342.0
17.5°	386.5	372.6	342.0	325.2	316.9
20°	371.9	352.4	319.7	299.5	291.1
22.5°	354.5	332.9	296.0	274.4	265.3
25°	337.8	310.6	272.3	248.6	237.5
27.5°	316.9	288.3	247.2	222.9	211.0
30°	299.5	266.7	223.6	196.4	185.3
32.5°	278.6	244.5	199.2	169.2	158.8
35°	259.8	222.2	174.8	143.5	130.2
37.5°	239.6	200.6	150.4	117.7	105.2
40°	218.0	179.0	128.1	91.9	78.0
42.5°	198.5	157.4	105.9	68.3	54.3
45°	175.5	136.5	86.4	46.0	29.9
47.5°	154.6	117.0	65.5	25.8	16.0
50°	132.3	96.8	46.7	13.2	10.4
52.5°	109.3	77.3	30.6	9.1	8.4
55°	87.1	59.9	17.4	7.0	7.0
57.5°	65.5	43.2	9.1	5.6	4.9
60°	46.0	28.6	5.6	4.2	3.5
62.5°	26.5	16.7	4.2	2.8	2.8
65°	10.4	7.7	2.8	1.4	1.4
67.5°	0.7	2.1	1.4	0.7	0.7
70°	0.0	0.0	0.7	0.7	0.7
72.5°	0.0	0.0	0.7	0.7	0.7
75°	0.0	0.0	0.0	0.0	0.7
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)