

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: P1059272

Luminaire Tested: S123RDR-S560D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059272  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S560D840-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

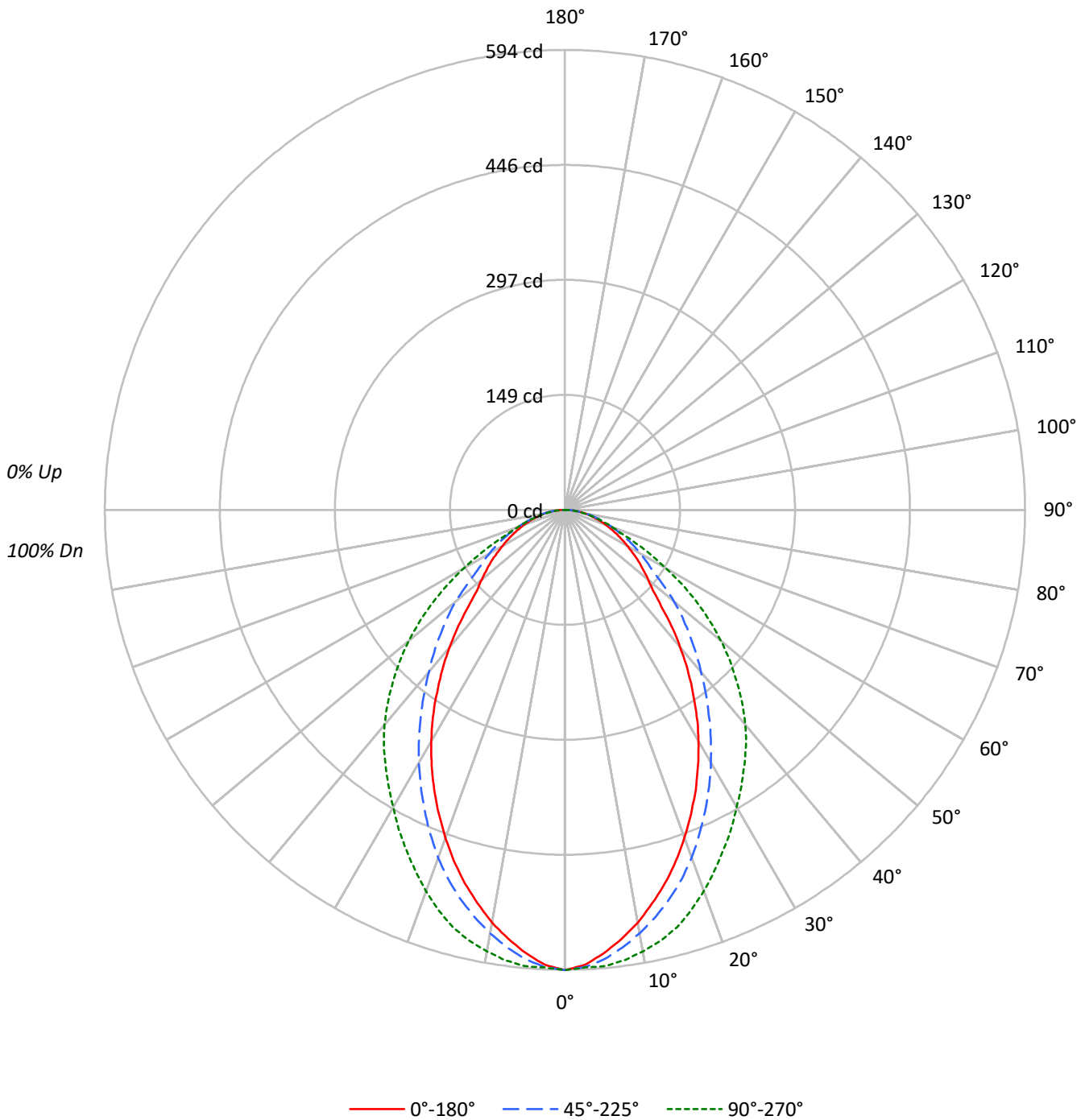
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1073.9 lumens  
Efficiency: N/A  
Efficacy: 54.8 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				57
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51				51
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41				41
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6981	6981	6981
5°	6778	6867	6975
10°	6457	6622	6905
15°	6066	6329	6786
20°	5634	5974	6549
25°	5173	5553	6276
30°	4678	5112	6009
35°	4126	4646	5784
40°	3547	4188	5555
45°	2916	3773	5208
50°	2559	3361	4799
55°	2369	2868	4252
60°	2177	2635	3518
65°	2034	2420	2770
70°	1916	2201	2201
75°	1801	2023	1896
80°	1697	1839	1603
85°	1590	1778	1226

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5208 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.0	5.1
10°-20°	147.4	13.7
20°-30°	199.8	18.6
30°-40°	208.9	19.5
40°-50°	181.2	16.9
50°-60°	134.8	12.6
60°-70°	86.5	8.1
70°-80°	46.4	4.3
80°-90°	14.0	1.3
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°	402.1	37.4
0°-40°	611.0	56.9
0°-60°	927.0	86.3
0°-90°	1073.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1073.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	594	594	594	594	594	
5°	575	585	583	587	592	54
15°	499	511	521	542	558	140
25°	399	412	429	457	484	183
35°	288	302	324	365	404	180
45°	176	189	227	276	314	138
55°	116	118	140	180	208	104
65°	73	79	87	93	100	73
75°	40	46	45	42	42	42
85°	12	15	13	11	9	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	594.5	594.5	594.5	594.5	594.5
2.5°	588.2	596.6	591.0	591.0	591.7
5°	575.0	584.7	582.6	586.8	591.7
7.5°	558.9	569.4	570.1	579.8	586.8
10°	541.5	552.0	555.4	569.4	579.1
12.5°	520.6	532.4	538.7	556.1	570.1
15°	499.0	510.8	520.6	541.5	558.2
17.5°	476.0	487.8	500.4	524.1	542.2
20°	450.9	463.5	478.1	501.8	524.1
22.5°	425.1	438.4	453.7	479.5	504.6
25°	399.3	411.9	428.6	457.2	484.4
27.5°	372.2	385.4	402.8	434.2	464.8
30°	345.0	358.2	377.0	410.5	443.2
32.5°	317.1	330.3	350.5	388.2	423.7
35°	287.8	301.8	324.1	365.2	403.5
37.5°	260.0	273.2	298.3	343.6	384.0
40°	231.4	245.3	273.2	322.0	362.4
42.5°	203.5	217.4	250.2	299.0	338.7
45°	175.6	188.9	227.2	276.0	313.6
47.5°	154.0	163.8	205.6	251.6	289.2
50°	140.1	143.6	184.0	227.9	262.7
52.5°	127.5	130.3	160.3	204.2	235.6
55°	115.7	118.5	140.1	179.8	207.7
57.5°	103.8	107.3	124.7	154.7	179.8
60°	92.7	96.9	112.2	132.4	149.8
62.5°	82.9	87.8	99.7	112.2	124.1
65°	73.2	79.4	87.1	92.7	99.7
67.5°	64.1	71.1	75.3	76.7	77.4
70°	55.8	62.7	64.1	64.1	64.1
72.5°	47.4	55.1	53.7	53.0	52.3
75°	39.7	46.0	44.6	42.5	41.8
77.5°	32.1	37.6	35.5	34.1	32.1
80°	25.1	29.3	27.2	25.8	23.7
82.5°	18.8	21.6	19.5	18.1	16.0
85°	11.8	14.6	13.2	11.2	9.1
87.5°	6.3	8.4	7.0	6.3	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)