

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: P1059267

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059267  
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-S560D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

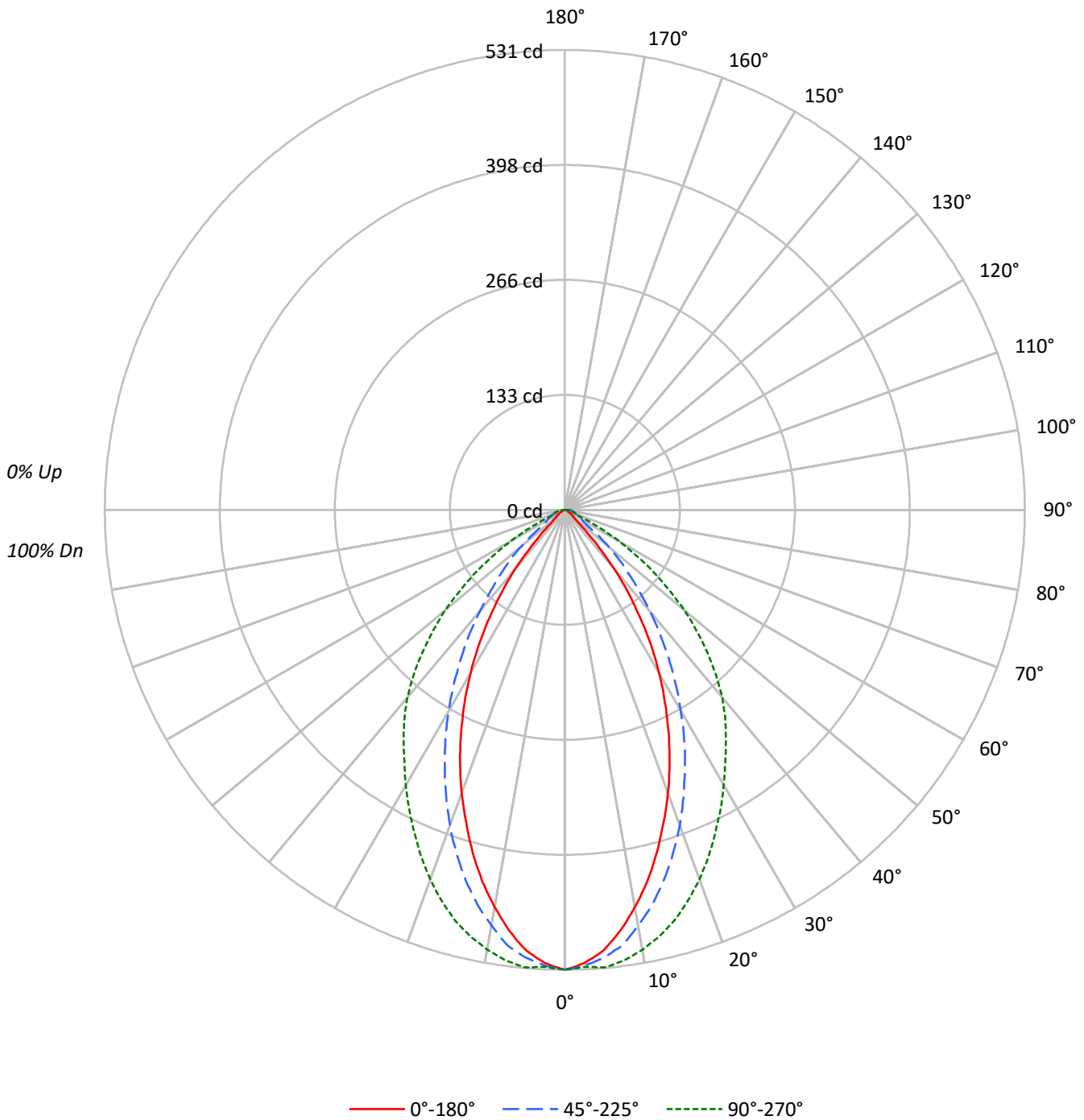
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 637.4 lumens  
Efficiency: N/A  
Efficacy: 32.5 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	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	89	102	97	92	88	94	90	86	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°	6234	6234	6234
5°	6019	6118	6250
10°	5556	5814	6147
15°	4987	5377	5962
20°	4350	4847	5674
25°	3669	4248	5324
30°	2950	3632	4975
35°	2160	2990	4650
40°	1347	2331	4330
45°	510	1737	3858
50°	243	1198	3288
55°	186	657	2543
60°	132	557	1672
65°	97	483	697
70°	96	457	457
75°	127	476	476
80°	189	568	521
85°	377	943	754

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3858 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.7	7.6
10°-20°	125.0	19.6
20°-30°	154.7	24.3
30°-40°	138.7	21.8
40°-50°	90.9	14.3
50°-60°	45.5	7.1
60°-70°	17.7	2.8
70°-80°	10.0	1.6
80°-90°	6.2	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°	328.4	51.5
0°-40°	467.0	73.3
0°-60°	603.5	94.7
0°-90°	637.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	637.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	531	531	531	531	531	
5°	511	519	519	525	530	47
15°	410	427	442	472	490	114
25°	283	301	328	375	411	129
35°	151	171	209	271	324	94
45°	31	50	105	179	232	29
55°	9	11	32	88	124	8
65°	4	10	17	23	25	4
75°	3	10	10	10	10	3
85°	3	7	7	7	6	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	530.9	530.9	530.9	530.9	530.9
2.5°	523.9	531.6	526.7	527.4	528.1
5°	510.6	519.0	519.0	524.6	530.2
7.5°	490.4	500.2	507.1	516.9	524.6
10°	466.0	477.8	487.6	505.0	515.5
12.5°	439.5	454.1	466.7	489.7	504.4
15°	410.2	426.9	442.3	471.6	490.4
17.5°	378.8	395.5	415.8	449.9	473.0
20°	348.1	364.8	387.9	426.2	454.1
22.5°	316.0	333.4	357.9	400.4	433.2
25°	283.2	300.7	327.9	374.6	410.9
27.5°	250.4	267.9	298.6	349.5	389.3
30°	217.6	235.1	267.9	322.3	366.9
32.5°	184.9	203.7	237.9	297.2	344.6
35°	150.7	170.9	208.6	271.4	324.4
37.5°	119.3	138.1	180.7	249.0	304.1
40°	87.9	108.1	152.1	227.4	282.5
42.5°	57.2	78.8	126.3	203.7	258.1
45°	30.7	49.5	104.6	179.3	232.3
47.5°	16.7	27.2	84.4	153.5	205.8
50°	13.3	15.3	65.6	131.1	180.0
52.5°	11.2	12.6	46.7	110.2	151.4
55°	9.1	11.2	32.1	87.9	124.2
57.5°	7.7	9.8	25.1	68.4	97.0
60°	5.6	8.4	23.7	50.2	71.2
62.5°	4.2	9.1	20.9	34.9	46.7
65°	3.5	10.5	17.4	23.0	25.1
67.5°	2.8	11.2	15.3	14.6	14.6
70°	2.8	10.5	13.3	12.6	13.3
72.5°	2.8	11.2	11.9	11.2	11.9
75°	2.8	10.5	10.5	10.5	10.5
77.5°	2.8	9.8	9.8	9.1	9.1
80°	2.8	8.4	8.4	8.4	7.7
82.5°	2.8	7.7	7.7	7.7	6.3
85°	2.8	7.0	7.0	7.0	5.6
87.5°	2.1	6.3	7.0	6.3	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)