

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: P1059131

Luminaire Tested: S123RDR-S1165D930-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059131  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1165D930-X4F0-XX-UDD-BVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

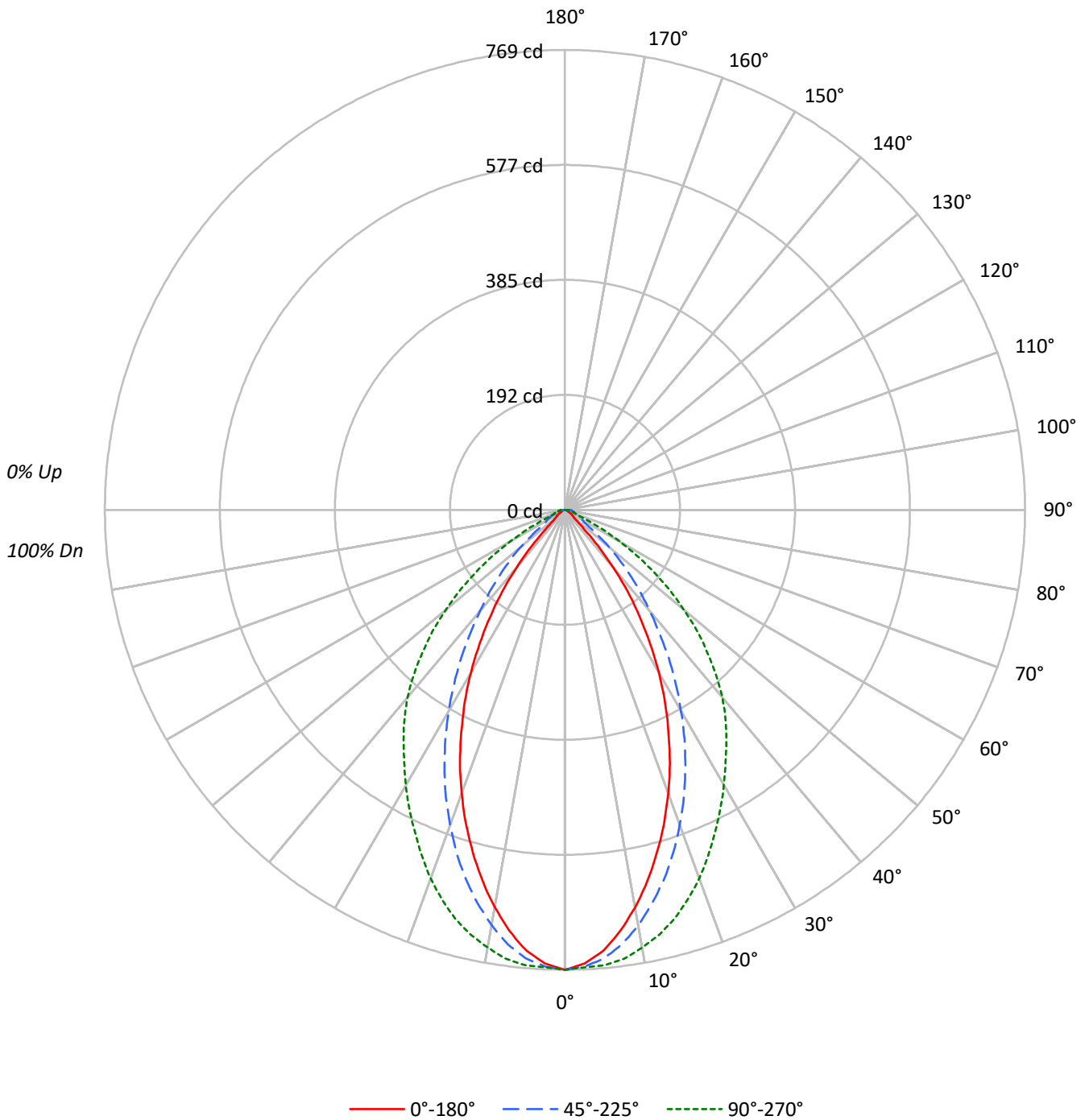
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 923.7 lumens  
Efficiency: N/A  
Efficacy: 22.1 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): 41.8  
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	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	68	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	64	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46				
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	41	40				

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

	0°	45°	90°
0°	9030	9030	9030
5°	8718	8870	9009
10°	8047	8412	8860
15°	7219	7777	8606
20°	6303	7009	8199
25°	5302	6170	7693
30°	4256	5261	7207
35°	3118	4332	6742
40°	1928	3371	6272
45°	742	2539	5585
50°	365	1739	4726
55°	289	962	3708
60°	193	801	2485
65°	164	720	1111
70°	161	645	645
75°	213	694	640
80°	318	872	717
85°	472	1428	957

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5585 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.5	7.6
10°-20°	180.5	19.5
20°-30°	224.0	24.3
30°-40°	200.7	21.7
40°-50°	131.9	14.3
50°-60°	66.1	7.2
60°-70°	26.1	2.8
70°-80°	14.6	1.6
80°-90°	9.2	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°	475.1	51.4
0°-40°	675.8	73.2
0°-60°	873.8	94.6
0°-90°	923.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	923.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	769	769	769	769	769	
5°	740	751	752	757	764	69
15°	594	613	640	683	708	165
25°	409	435	476	543	594	187
35°	218	247	302	395	470	135
45°	45	74	153	258	336	42
55°	14	16	47	127	181	13
65°	6	16	26	33	40	6
75°	5	15	15	14	14	5
85°	4	11	11	11	7	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	769.0	769.0	769.0	769.0	769.0
2.5°	759.6	770.2	764.3	764.3	765.5
5°	739.6	751.4	752.5	757.2	764.3
7.5°	710.2	725.5	732.5	746.7	757.2
10°	674.9	691.4	705.5	730.2	743.1
12.5°	636.1	652.6	673.8	707.9	727.8
15°	593.8	612.6	639.7	683.2	707.9
17.5°	550.3	569.1	602.0	651.4	683.2
20°	504.4	525.6	560.9	617.3	656.1
22.5°	458.6	482.1	519.7	580.9	625.5
25°	409.2	435.1	476.2	543.2	593.8
27.5°	362.2	389.2	432.7	505.6	563.2
30°	313.9	341.0	388.0	466.8	531.5
32.5°	264.6	295.1	344.5	430.4	499.7
35°	217.5	246.9	302.2	395.1	470.3
37.5°	171.7	201.1	258.7	361.0	440.9
40°	125.8	156.4	219.9	328.1	409.2
42.5°	82.3	114.1	185.8	295.1	373.9
45°	44.7	74.1	152.9	257.5	336.3
47.5°	24.7	40.0	123.5	222.2	299.8
50°	20.0	22.3	95.2	189.3	258.7
52.5°	16.5	18.8	68.2	157.6	221.1
55°	14.1	16.5	47.0	127.0	181.1
57.5°	11.8	14.1	37.6	97.6	142.3
60°	8.2	14.1	34.1	71.7	105.8
62.5°	7.1	14.1	29.4	49.4	70.6
65°	5.9	16.5	25.9	32.9	40.0
67.5°	4.7	16.5	22.3	21.2	21.2
70°	4.7	16.5	18.8	17.6	18.8
72.5°	4.7	17.6	17.6	16.5	16.5
75°	4.7	15.3	15.3	14.1	14.1
77.5°	4.7	14.1	14.1	12.9	12.9
80°	4.7	12.9	12.9	11.8	10.6
82.5°	4.7	11.8	11.8	10.6	9.4
85°	3.5	10.6	10.6	10.6	7.1
87.5°	3.5	9.4	10.6	9.4	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)