

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: P1059068

Luminaire Tested: S123RDR-S1000D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059068  
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-S1000D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

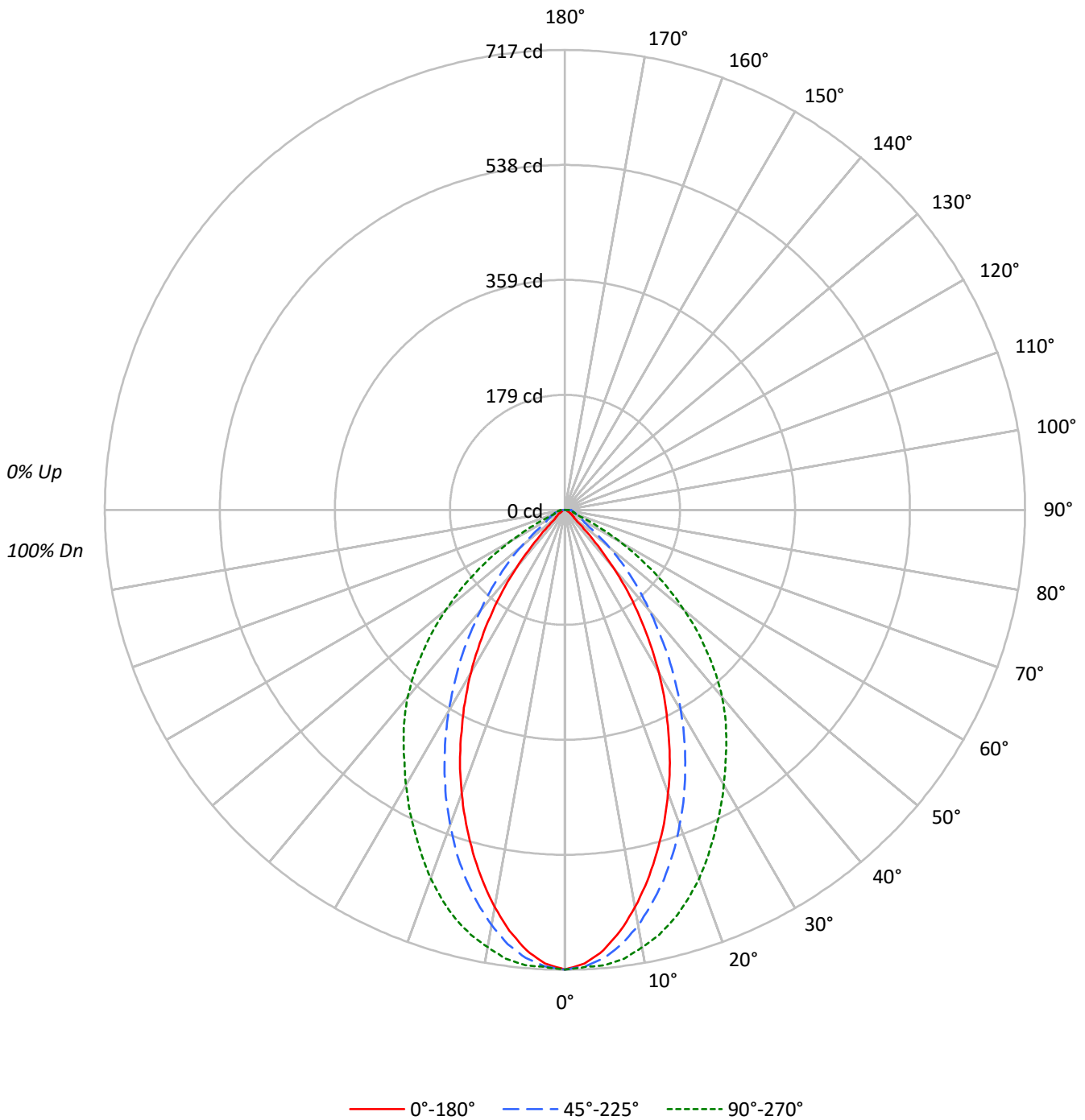
Lumens per Lamp: N/A  
Luminaire Lumens: 860.8 lumens  
Efficiency: N/A  
Efficacy: 24.6 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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	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°	8416	8416	8416
5°	8125	8266	8396
10°	7500	7840	8258
15°	6727	7247	8020
20°	5874	6532	7641
25°	4940	5750	7170
30°	3967	4903	6716
35°	2906	4037	6283
40°	1798	3141	5845
45°	691	2366	5204
50°	340	1622	4404
55°	268	897	3456
60°	181	747	2316
65°	153	670	1036
70°	151	601	601
75°	200	644	594
80°	298	818	669
85°	445	1334	889

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5204 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.7	7.6
10°-20°	168.2	19.5
20°-30°	208.8	24.3
30°-40°	187.0	21.7
40°-50°	123.0	14.3
50°-60°	61.6	7.2
60°-70°	24.3	2.8
70°-80°	13.6	1.6
80°-90°	8.6	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°	442.7	51.4
0°-40°	629.8	73.2
0°-60°	814.3	94.6
0°-90°	860.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	860.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	717	717	717	717	717	
5°	689	700	701	706	712	64
15°	553	571	596	637	660	154
25°	381	405	444	506	553	174
35°	203	230	282	368	438	126
45°	42	69	142	240	313	39
55°	13	15	44	118	169	12
65°	6	15	24	31	37	6
75°	4	14	14	13	13	5
85°	3	10	10	10	7	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	716.7	716.7	716.7	716.7	716.7
2.5°	707.9	717.8	712.3	712.3	713.4
5°	689.3	700.2	701.3	705.7	712.3
7.5°	661.9	676.1	682.7	695.8	705.7
10°	629.0	644.3	657.5	680.5	692.6
12.5°	592.8	608.2	627.9	659.7	678.3
15°	553.4	570.9	596.1	636.7	659.7
17.5°	512.8	530.4	561.1	607.1	636.7
20°	470.1	489.8	522.7	575.3	611.5
22.5°	427.4	449.3	484.3	541.3	583.0
25°	381.3	405.4	443.8	506.3	553.4
27.5°	337.5	362.7	403.3	471.2	524.9
30°	292.6	317.8	361.6	435.0	495.3
32.5°	246.6	275.0	321.1	401.1	465.7
35°	202.7	230.1	281.6	368.2	438.3
37.5°	160.0	187.4	241.1	336.4	410.9
40°	117.3	145.7	204.9	305.7	381.3
42.5°	76.7	106.3	173.1	275.0	348.5
45°	41.6	69.0	142.5	240.0	313.4
47.5°	23.0	37.3	115.1	207.1	279.4
50°	18.6	20.8	88.8	176.4	241.1
52.5°	15.3	17.5	63.6	146.8	206.0
55°	13.1	15.3	43.8	118.3	168.8
57.5°	11.0	13.1	35.1	91.0	132.6
60°	7.7	13.1	31.8	66.8	98.6
62.5°	6.6	13.1	27.4	46.0	65.7
65°	5.5	15.3	24.1	30.7	37.3
67.5°	4.4	15.3	20.8	19.7	19.7
70°	4.4	15.3	17.5	16.4	17.5
72.5°	4.4	16.4	16.4	15.3	15.3
75°	4.4	14.2	14.2	13.1	13.1
77.5°	4.4	13.1	13.1	12.1	12.1
80°	4.4	12.1	12.1	11.0	9.9
82.5°	4.4	11.0	11.0	9.9	8.8
85°	3.3	9.9	9.9	9.9	6.6
87.5°	3.3	8.8	9.9	8.8	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)