

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059067

Luminaire Tested: S123RDRP-S1000D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059067  
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: S123RDRP-S1000D940-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, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

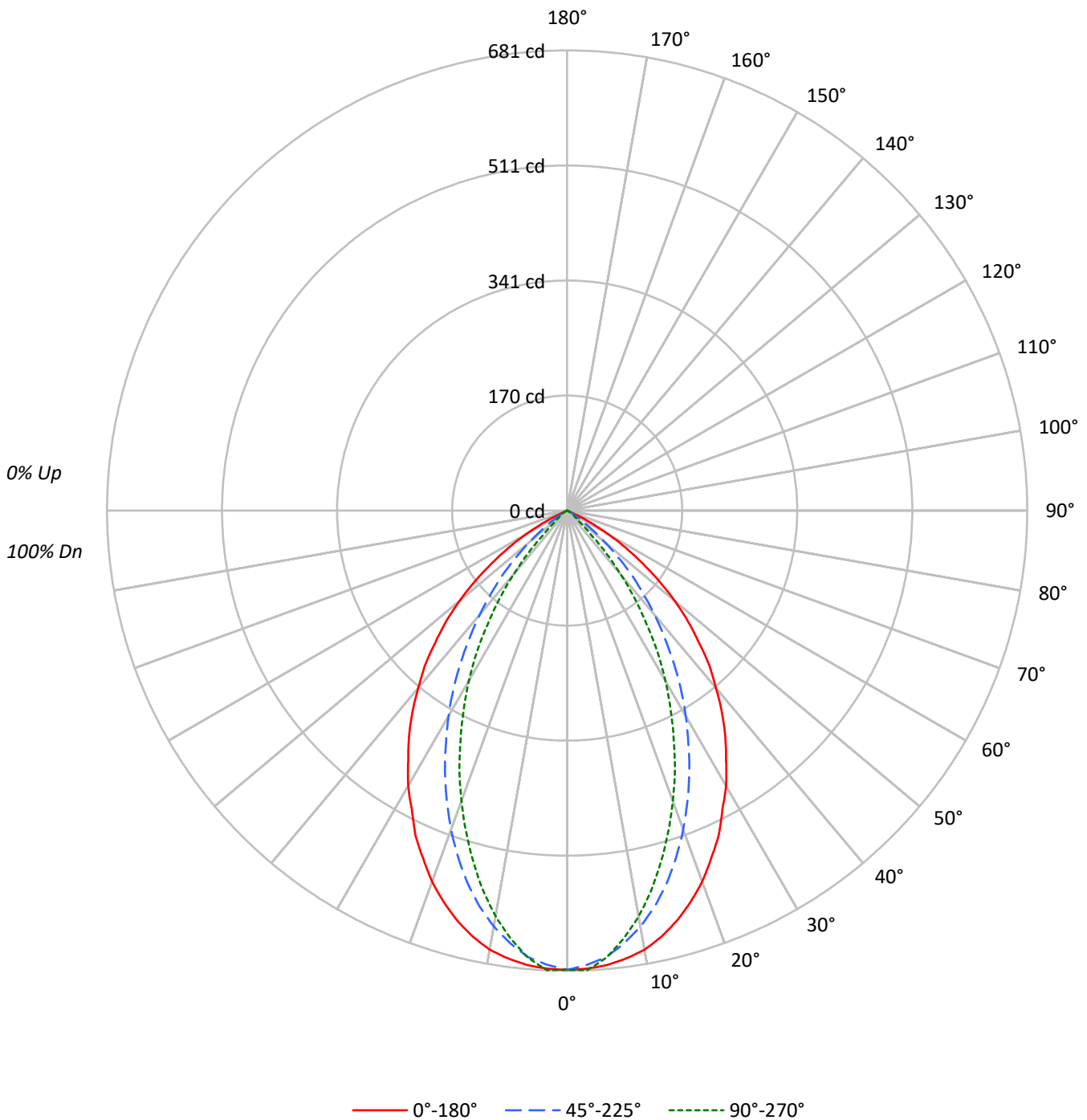
Lumens per Lamp: N/A  
Luminaire Lumens: 775.5 lumens  
Efficiency: N/A  
Efficacy: 22.2 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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°	7980	7980	7980
5°	7959	7817	7830
10°	7868	7451	7269
15°	7637	6932	6532
20°	7303	6277	5716
25°	6877	5544	4835
30°	6381	4763	3947
35°	5851	3938	2933
40°	5250	3087	1879
45°	4580	2253	782
50°	3798	1339	300
55°	2801	561	223
60°	1696	207	129
65°	456	122	61
70°	0	38	38
75°	0	0	50
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4580 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.6	8.1
10°-20°	161.5	20.8
20°-30°	201.2	25.9
30°-40°	179.9	23.2
40°-50°	113.6	14.6
50°-60°	47.5	6.1
60°-70°	9.0	1.2
70°-80°	0.3	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°	425.3	54.8
0°-40°	605.2	78.0
0°-60°	766.2	98.8
0°-90°	775.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	775.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	675	674	663	665	664	64
15°	628	613	570	546	537	176
25°	531	488	428	391	373	243
35°	408	349	275	225	205	254
45°	276	214	136	72	47	213
55°	137	94	27	11	11	123
65°	16	12	4	2	2	23
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°	679.6	679.6	679.6	679.6	679.6
2.5°	678.5	679.6	673.0	679.6	680.7
5°	675.2	674.1	663.2	665.4	664.3
7.5°	668.6	665.4	645.7	641.3	639.1
10°	659.9	651.1	624.9	613.9	609.6
12.5°	645.7	633.6	599.7	582.2	575.6
15°	628.2	612.8	570.2	546.1	537.3
17.5°	607.4	585.5	537.3	511.1	497.9
20°	584.4	553.7	502.3	470.6	457.4
22.5°	557.0	523.1	465.1	431.2	416.9
25°	530.8	488.1	427.9	390.7	373.2
27.5°	497.9	453.1	388.5	350.2	331.6
30°	470.6	419.1	351.3	308.6	291.1
32.5°	437.7	384.1	313.0	265.9	249.5
35°	408.2	349.1	274.7	225.4	204.6
37.5°	376.5	315.2	236.4	184.9	165.2
40°	342.5	281.2	201.4	144.5	122.6
42.5°	311.9	247.3	166.3	107.2	85.4
45°	275.8	214.5	135.7	72.2	47.1
47.5°	242.9	183.9	102.9	40.5	25.2
50°	207.9	152.1	73.3	20.8	16.4
52.5°	171.8	121.5	48.2	14.2	13.1
55°	136.8	94.1	27.4	10.9	10.9
57.5°	102.9	67.8	14.2	8.8	7.7
60°	72.2	44.9	8.8	6.6	5.5
62.5°	41.6	26.3	6.6	4.4	4.4
65°	16.4	12.0	4.4	2.2	2.2
67.5°	1.1	3.3	2.2	1.1	1.1
70°	0.0	0.0	1.1	1.1	1.1
72.5°	0.0	0.0	1.1	1.1	1.1
75°	0.0	0.0	0.0	0.0	1.1
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



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	12.40	13.58	12.77	13.89	14.21	0.00	0.00	0.00	0.00	0.00
	3H	12.24	13.28	12.63	13.61	13.97	0.00	0.00	0.00	0.00	0.00
	4H	12.16	13.11	12.56	13.46	13.85	0.00	0.00	0.00	0.00	0.00
	6H	12.06	12.94	12.48	13.31	13.71	0.00	0.00	0.00	0.00	0.00
	8H	12.02	12.84	12.45	13.23	13.64	0.00	0.00	0.00	0.00	0.00
	12H	11.96	12.75	12.40	13.13	13.56	0.00	0.00	0.00	0.00	0.00
4H	2H	12.16	13.12	12.57	13.47	13.86	0.00	0.00	0.00	0.00	0.00
	3H	12.00	12.77	12.41	13.17	13.58	0.00	0.00	0.00	0.00	0.00
	4H	11.89	12.57	12.33	13.00	13.44	0.00	0.00	0.00	0.00	0.00
	6H	11.80	12.38	12.26	12.83	13.30	0.00	0.00	0.00	0.00	0.00
	8H	11.73	12.28	12.20	12.73	13.20	0.00	0.00	0.00	0.00	0.00
	12H	11.67	12.15	12.16	12.64	13.11	0.00	0.00	0.00	0.00	0.00
8H	4H	11.73	12.28	12.20	12.73	13.20	0.00	0.00	0.00	0.00	0.00
	6H	11.62	12.06	12.12	12.56	13.04	0.00	0.00	0.00	0.00	0.00
	8H	11.54	11.94	12.07	12.46	12.95	0.00	0.00	0.00	0.00	0.00
	12H	11.49	11.84	12.01	12.34	12.91	0.00	0.00	0.00	0.00	0.00
12H	4H	11.67	12.15	12.16	12.64	13.11	0.00	0.00	0.00	0.00	0.00
	6H	11.54	11.94	12.07	12.46	12.95	0.00	0.00	0.00	0.00	0.00
	8H	11.49	11.84	12.01	12.34	12.91	0.00	0.00	0.00	0.00	0.00