

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: P1059042

Luminaire Tested: S123RDRP-S1000D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059042  
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: S123RDRP-S1000D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

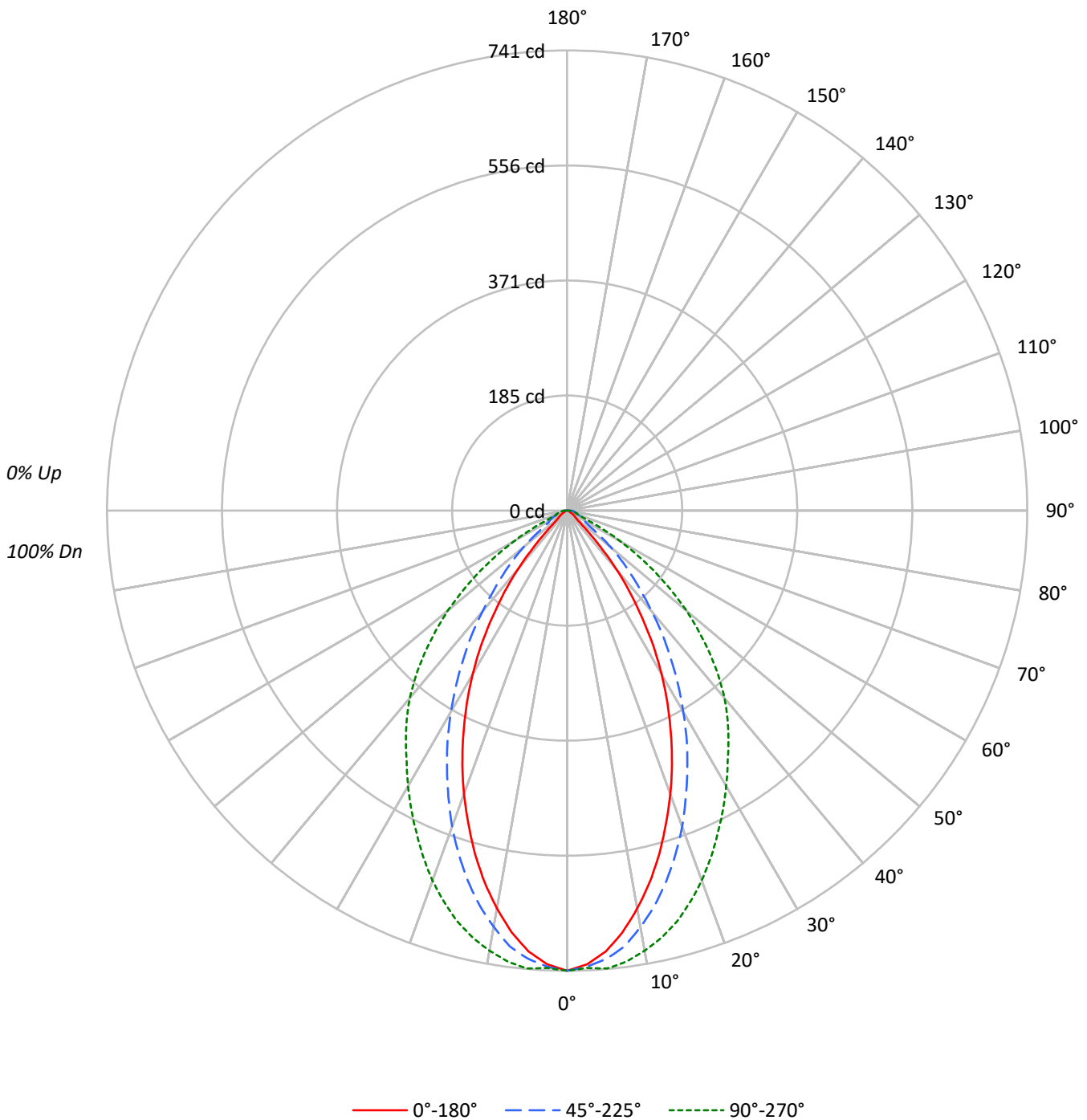
Lumens per Lamp: N/A  
Luminaire Lumens: 889.7 lumens  
Efficiency: N/A  
Efficacy: 25.4 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	88	94	90	87	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°	8701	8701	8701
5°	8402	8540	8724
10°	7756	8116	8580
15°	6961	7506	8322
20°	6072	6765	7921
25°	5123	5930	7432
30°	4119	5070	6945
35°	3015	4174	6491
40°	1881	3254	6046
45°	711	2426	5385
50°	338	1672	4589
55°	260	917	3548
60°	183	777	2332
65°	136	675	975
70°	134	635	635
75°	177	662	662
80°	264	791	724
85°	525	1307	1051

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5385 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.0	7.6
10°-20°	174.4	19.6
20°-30°	215.9	24.3
30°-40°	193.6	21.8
40°-50°	126.9	14.3
50°-60°	63.5	7.1
60°-70°	24.8	2.8
70°-80°	14.0	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°	458.4	51.5
0°-40°	651.9	73.3
0°-60°	842.4	94.7
0°-90°	889.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	889.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	741	741	741	741	741	
5°	713	724	724	732	740	66
15°	573	596	617	658	685	159
25°	395	420	458	523	574	180
35°	210	239	291	379	453	131
45°	43	69	146	250	324	41
55°	13	16	45	123	173	12
65°	5	15	24	32	35	5
75°	4	15	15	15	15	4
85°	4	10	10	10	8	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	741.0	741.0	741.0	741.0	741.0
2.5°	731.3	742.0	735.2	736.2	737.1
5°	712.8	724.5	724.5	732.3	740.1
7.5°	684.6	698.2	707.9	721.6	732.3
10°	650.5	667.0	680.7	705.0	719.6
12.5°	613.5	633.9	651.5	683.6	704.0
15°	572.6	595.9	617.4	658.3	684.6
17.5°	528.8	552.1	580.4	628.1	660.2
20°	485.9	509.3	541.4	595.0	633.9
22.5°	441.1	465.5	499.5	558.9	604.7
25°	395.4	419.7	457.7	522.9	573.6
27.5°	349.6	373.9	416.8	487.9	543.4
30°	303.8	328.2	373.9	449.9	512.2
32.5°	258.0	284.3	332.1	414.8	481.0
35°	210.3	238.6	291.2	378.8	452.8
37.5°	166.5	192.8	252.2	347.6	424.6
40°	122.7	150.9	212.3	317.4	394.4
42.5°	79.8	110.0	176.3	284.3	360.3
45°	42.8	69.1	146.1	250.3	324.3
47.5°	23.4	38.0	117.8	214.2	287.3
50°	18.5	21.4	91.5	183.1	251.2
52.5°	15.6	17.5	65.2	153.9	211.3
55°	12.7	15.6	44.8	122.7	173.3
57.5°	10.7	13.6	35.1	95.4	135.4
60°	7.8	11.7	33.1	70.1	99.3
62.5°	5.8	12.7	29.2	48.7	65.2
65°	4.9	14.6	24.3	32.1	35.1
67.5°	3.9	15.6	21.4	20.4	20.4
70°	3.9	14.6	18.5	17.5	18.5
72.5°	3.9	15.6	16.6	15.6	16.6
75°	3.9	14.6	14.6	14.6	14.6
77.5°	3.9	13.6	13.6	12.7	12.7
80°	3.9	11.7	11.7	11.7	10.7
82.5°	3.9	10.7	10.7	10.7	8.8
85°	3.9	9.7	9.7	9.7	7.8
87.5°	2.9	8.8	9.7	8.8	5.8
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	0.00	1.12	0.23	1.43	1.74	14.12	15.38	14.49	15.69	16.00
	3H	2.20	3.31	2.58	3.64	4.01	14.20	15.31	14.58	15.64	16.01
	4H	3.31	4.34	3.71	4.69	5.08	14.28	15.31	14.68	15.66	16.05
	6H	4.30	5.25	4.71	5.62	6.01	14.38	15.33	14.80	15.70	16.10
	8H	4.78	5.68	5.21	6.07	6.48	14.44	15.34	14.87	15.73	16.14
	12H	5.34	6.20	5.77	6.58	7.01	14.52	15.38	14.96	15.76	16.19
4H	2H	3.11	4.14	3.51	4.50	4.88	13.97	15.01	14.38	15.36	15.74
	3H	5.44	6.28	5.85	6.69	7.09	14.15	14.99	14.56	15.40	15.80
	4H	6.81	7.56	7.24	7.98	8.43	14.30	15.06	14.74	15.48	15.92
	6H	7.90	8.55	8.36	8.99	9.46	14.53	15.18	14.99	15.63	16.10
	8H	8.35	8.96	8.82	9.41	9.88	14.65	15.26	15.12	15.71	16.18
	12H	8.85	9.38	9.33	9.87	10.34	14.83	15.37	15.31	15.85	16.32
8H	4H	7.78	8.39	8.25	8.84	9.31	14.30	14.91	14.77	15.36	15.83
	6H	9.31	9.80	9.81	10.30	10.78	14.64	15.14	15.14	15.63	16.12
	8H	10.08	10.53	10.60	11.04	11.54	14.87	15.32	15.39	15.84	16.33
	12H	10.88	11.28	11.40	11.77	12.35	15.20	15.60	15.72	16.10	16.67
12H	4H	7.96	8.50	8.45	8.98	9.46	14.28	14.82	14.77	15.30	15.78
	6H	9.62	10.07	10.14	10.59	11.08	14.66	15.11	15.18	15.62	16.12
	8H	10.57	10.97	11.09	11.47	12.04	14.97	15.36	15.48	15.86	16.43