

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



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: P1059693

Luminaire Tested: S123RDR-H560D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059693  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-H560D927-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

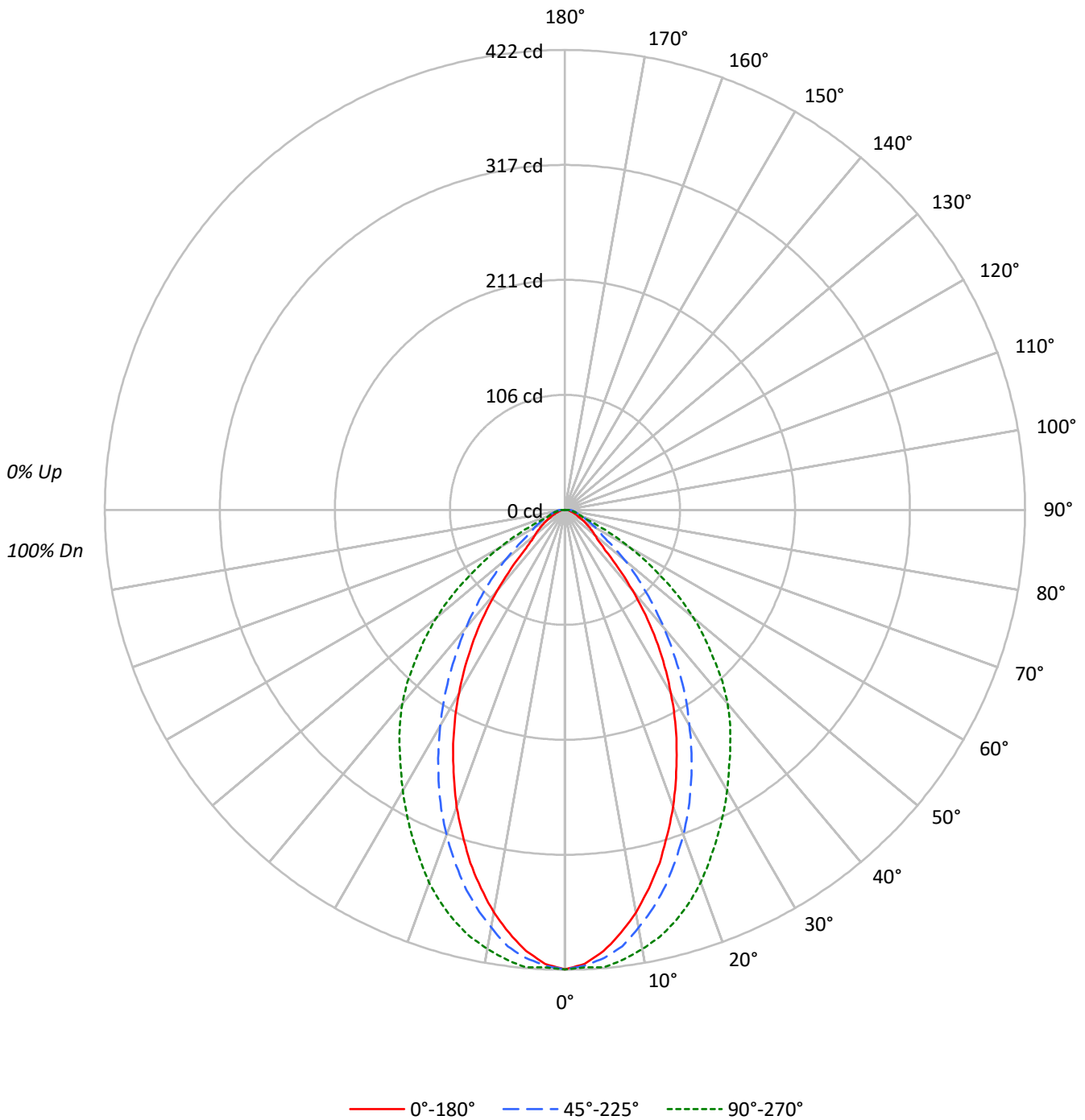
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 566.1 lumens  
Efficiency: N/A  
Efficacy: 32.5 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
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				100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				37

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

	0°	45°	90°
0°	4952	4952	4952
5°	4792	4866	4965
10°	4473	4641	4878
15°	4076	4336	4751
20°	3626	3966	4550
25°	3142	3550	4290
30°	2635	3097	4034
35°	2087	2636	3792
40°	1478	2167	3558
45°	870	1714	3202
50°	650	1301	2804
55°	547	880	2252
60°	444	752	1599
65°	350	639	845
70°	306	556	522
75°	286	522	499
80°	284	568	494
85°	350	849	633

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3202 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.8	6.9
10°-20°	100.9	17.8
20°-30°	128.4	22.7
30°-40°	120.8	21.3
40°-50°	87.0	15.4
50°-60°	50.3	8.9
60°-70°	23.0	4.1
70°-80°	11.5	2.0
80°-90°	5.4	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°	268.1	47.4
0°-40°	388.9	68.7
0°-60°	526.2	93.0
0°-90°	566.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	566.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	422	422	422	422	422	
5°	406	413	413	417	421	38
15°	335	347	357	377	391	93
25°	242	255	274	304	331	111
35°	146	158	184	226	264	90
45°	52	66	103	155	193	44
55°	27	28	43	82	110	24
65°	13	18	23	26	30	13
75°	6	12	12	11	11	7
85°	3	6	6	6	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	421.7	421.7	421.7	421.7	421.7
2.5°	417.0	422.2	418.5	419.1	420.1
5°	406.5	413.3	412.8	417.0	421.2
7.5°	391.8	399.7	403.9	410.2	415.9
10°	375.1	384.0	389.2	400.7	409.1
12.5°	355.7	367.2	374.0	389.2	401.3
15°	335.3	347.3	356.7	376.6	390.8
17.5°	312.2	325.3	337.3	360.9	378.2
20°	290.2	302.8	317.4	343.1	364.1
22.5°	266.1	279.7	296.5	323.7	347.3
25°	242.5	255.1	274.0	304.3	331.1
27.5°	219.0	231.5	251.4	285.0	314.3
30°	194.3	207.4	228.4	265.6	297.5
32.5°	170.2	182.8	206.4	246.7	280.2
35°	145.6	158.2	183.9	226.3	264.5
37.5°	121.5	134.6	161.9	209.5	248.8
40°	96.4	110.5	141.4	192.2	232.1
42.5°	72.8	88.0	121.0	174.4	213.7
45°	52.4	65.5	103.2	155.1	192.8
47.5°	40.9	47.7	87.0	135.1	173.4
50°	35.6	36.7	71.2	116.8	153.5
52.5°	30.9	32.0	56.0	99.5	132.5
55°	26.7	27.8	43.0	81.7	110.0
57.5°	22.5	24.1	35.6	65.0	88.5
60°	18.9	21.0	32.0	49.8	68.1
62.5°	15.2	18.9	27.2	36.7	48.7
65°	12.6	17.8	23.0	25.7	30.4
67.5°	10.5	16.2	19.4	18.3	17.8
70°	8.9	14.7	16.2	14.7	15.2
72.5°	7.3	13.6	13.6	12.6	12.6
75°	6.3	12.0	11.5	11.0	11.0
77.5°	5.2	10.5	10.0	9.4	8.9
80°	4.2	8.4	8.4	7.9	7.3
82.5°	3.7	6.8	6.8	6.8	5.8
85°	2.6	5.8	6.3	5.8	4.7
87.5°	2.1	5.2	5.2	4.7	3.1
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	5.53	6.85	5.89	7.16	7.48	12.89	14.21	13.26	14.53	14.84
	3H	6.92	8.09	7.30	8.42	8.78	13.12	14.29	13.50	14.62	14.99
	4H	7.47	8.56	7.87	8.91	9.29	13.24	14.33	13.64	14.68	15.06
	6H	7.90	8.90	8.32	9.27	9.67	13.35	14.36	13.77	14.73	15.12
	8H	8.08	9.03	8.51	9.42	9.83	13.41	14.35	13.84	14.75	15.15
	12H	8.24	9.14	8.67	9.53	9.96	13.46	14.37	13.90	14.76	15.19
4H	2H	6.62	7.71	7.03	8.07	8.45	12.85	13.94	13.25	14.29	14.68
	3H	8.29	9.18	8.70	9.59	9.99	13.21	14.11	13.62	14.51	14.91
	4H	9.10	9.89	9.53	10.31	10.76	13.41	14.21	13.84	14.63	15.07
	6H	9.73	10.42	10.19	10.87	11.34	13.64	14.33	14.10	14.77	15.24
	8H	9.97	10.62	10.44	11.06	11.53	13.74	14.39	14.21	14.83	15.30
	12H	10.18	10.76	10.67	11.24	11.71	13.87	14.44	14.36	14.92	15.40
8H	4H	9.54	10.18	10.01	10.63	11.10	13.45	14.09	13.92	14.54	15.01
	6H	10.45	10.98	10.95	11.48	11.96	13.77	14.30	14.28	14.80	15.28
	8H	10.87	11.35	11.39	11.87	12.36	13.96	14.44	14.49	14.96	15.45
	12H	11.29	11.72	11.81	12.21	12.78	14.22	14.64	14.73	15.13	15.70
12H	4H	9.60	10.17	10.08	10.65	11.13	13.44	14.01	13.92	14.49	14.96
	6H	10.59	11.06	11.11	11.58	12.07	13.79	14.27	14.31	14.78	15.27
	8H	11.13	11.55	11.64	12.04	12.62	14.05	14.47	14.56	14.96	15.54