

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: P1059696

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059696  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-H560D927-X4F0-XX-UDD-WVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

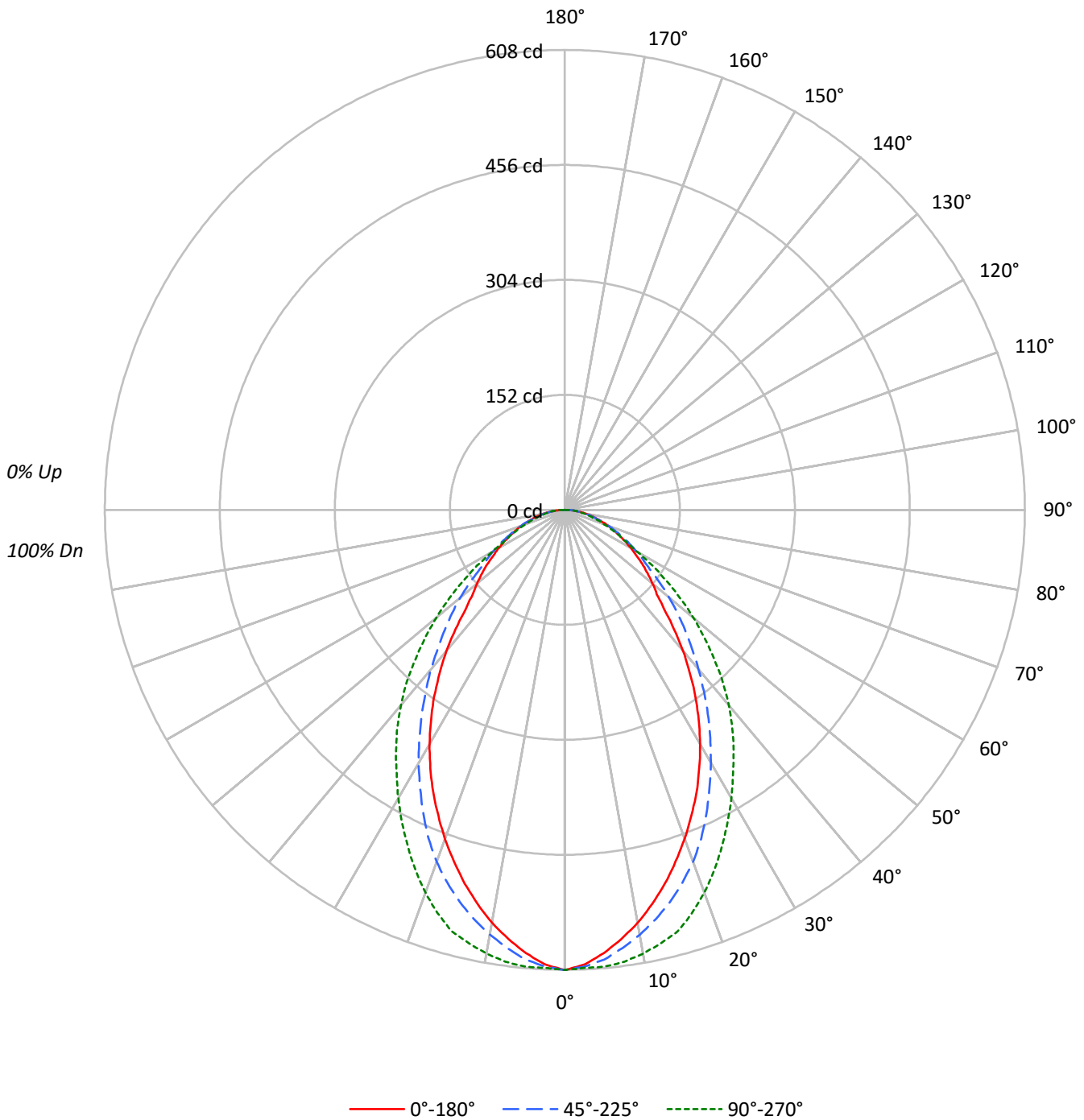
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1068.9 lumens  
Efficiency: N/A  
Efficacy: 61.4 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09  
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				
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				

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

	0°	45°	90°
0°	7143	7143	7143
5°	6936	7035	7145
10°	6610	6798	7103
15°	6218	6523	7013
20°	5783	6188	6732
25°	5338	5738	6362
30°	4847	5238	5970
35°	4315	4728	5576
40°	3723	4212	5167
45°	3077	3730	4633
50°	2764	3290	4045
55°	2561	2809	3355
60°	2360	2558	2569
65°	2195	2312	2153
70°	2067	2101	1888
75°	1946	1878	1661
80°	1839	1697	1555
85°	1765	1900	1765

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4633 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.3	5.3
10°-20°	151.8	14.2
20°-30°	205.3	19.2
30°-40°	211.0	19.7
40°-50°	177.2	16.6
50°-60°	127.1	11.9
60°-70°	80.9	7.6
70°-80°	44.4	4.2
80°-90°	14.8	1.4
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°	413.5	38.7
0°-40°	624.5	58.4
0°-60°	928.7	86.9
0°-90°	1068.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1068.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	608	608	608	608	608	
5°	588	599	597	601	606	55
15°	512	526	537	560	577	143
25°	412	428	443	467	491	189
35°	301	317	330	359	389	187
45°	185	202	225	257	279	146
55°	125	128	137	156	164	112
65°	79	84	83	78	78	79
75°	43	47	41	38	37	46
85°	13	14	14	15	13	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	608.3	608.3	608.3	608.3	608.3
2.5°	601.5	609.9	604.1	604.6	606.2
5°	588.4	598.9	596.8	601.0	606.2
7.5°	572.2	583.7	584.2	594.2	602.5
10°	554.4	566.4	570.1	585.3	595.7
12.5°	533.4	546.5	554.4	573.2	586.8
15°	511.5	525.6	536.6	559.6	576.9
17.5°	487.4	502.6	516.7	541.3	559.1
20°	462.8	479.0	495.2	518.3	538.7
22.5°	437.1	453.9	470.6	493.1	515.6
25°	412.0	427.7	442.9	467.0	491.0
27.5°	384.8	401.0	414.1	440.8	465.9
30°	357.5	373.8	386.3	414.1	440.3
32.5°	329.3	346.0	357.5	386.3	413.6
35°	301.0	317.2	329.8	359.1	389.0
37.5°	271.2	289.0	301.5	334.5	363.8
40°	242.9	259.7	274.8	309.4	337.1
42.5°	213.6	230.9	248.1	283.7	309.4
45°	185.3	201.5	224.6	257.0	279.0
47.5°	164.9	175.4	202.1	229.3	250.2
50°	151.3	155.5	180.1	204.2	221.4
52.5°	137.7	140.8	157.6	179.6	192.6
55°	125.1	127.7	137.2	155.5	163.9
57.5°	111.5	114.1	122.0	132.4	137.2
60°	100.5	102.6	108.9	110.5	109.4
62.5°	89.5	92.7	95.8	92.1	90.6
65°	79.0	83.8	83.2	78.5	77.5
67.5°	69.6	74.3	71.7	67.0	65.4
70°	60.2	64.9	61.2	56.5	55.0
72.5°	51.3	56.5	50.8	46.6	45.5
75°	42.9	47.1	41.4	38.2	36.6
77.5°	35.1	38.2	33.0	30.4	29.3
80°	27.2	29.3	25.1	23.6	23.0
82.5°	19.9	20.9	18.3	19.4	18.8
85°	13.1	13.6	14.1	14.7	13.1
87.5°	6.3	8.9	8.9	8.4	6.8
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	14.01	15.48	14.38	15.79	16.11	15.08	16.55	15.45	16.86	17.18
	3H	15.71	17.02	16.09	17.35	17.71	16.17	17.48	16.55	17.81	18.17
	4H	16.37	17.59	16.77	17.94	18.32	16.57	17.80	16.97	18.15	18.53
	6H	16.87	18.00	17.28	18.37	18.76	16.88	18.01	17.29	18.38	18.77
	8H	17.04	18.12	17.47	18.51	18.91	17.01	18.09	17.44	18.48	18.88
	12H	17.17	18.20	17.60	18.58	19.01	17.13	18.17	17.57	18.55	18.98
4H	2H	14.62	15.84	15.02	16.19	16.57	15.49	16.72	15.89	17.06	17.44
	3H	16.54	17.56	16.95	17.96	18.36	16.81	17.82	17.22	18.22	18.63
	4H	17.35	18.27	17.79	18.69	19.13	17.32	18.24	17.76	18.66	19.10
	6H	18.00	18.80	18.46	19.24	19.70	17.76	18.55	18.22	19.00	19.46
	8H	18.22	18.97	18.69	19.41	19.88	17.95	18.69	18.41	19.14	19.60
	12H	18.40	19.06	18.88	19.54	20.01	18.13	18.79	18.61	19.27	19.75
8H	4H	17.59	18.34	18.06	18.78	19.25	17.57	18.31	18.03	18.76	19.23
	6H	18.38	19.00	18.88	19.49	19.97	18.12	18.73	18.62	19.23	19.70
	8H	18.69	19.25	19.21	19.76	20.25	18.40	18.95	18.91	19.46	19.95
	12H	18.96	19.45	19.47	19.94	20.51	18.69	19.18	19.20	19.67	20.24
12H	4H	17.60	18.27	18.09	18.75	19.22	17.60	18.26	18.08	18.74	19.21
	6H	18.41	18.97	18.93	19.48	19.97	18.17	18.72	18.69	19.24	19.72
	8H	18.79	19.28	19.30	19.77	20.34	18.51	19.00	19.02	19.49	20.06