

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: P1059624

Luminaire Tested: S123RDR-H340D930-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059624  
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-H340D930-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: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

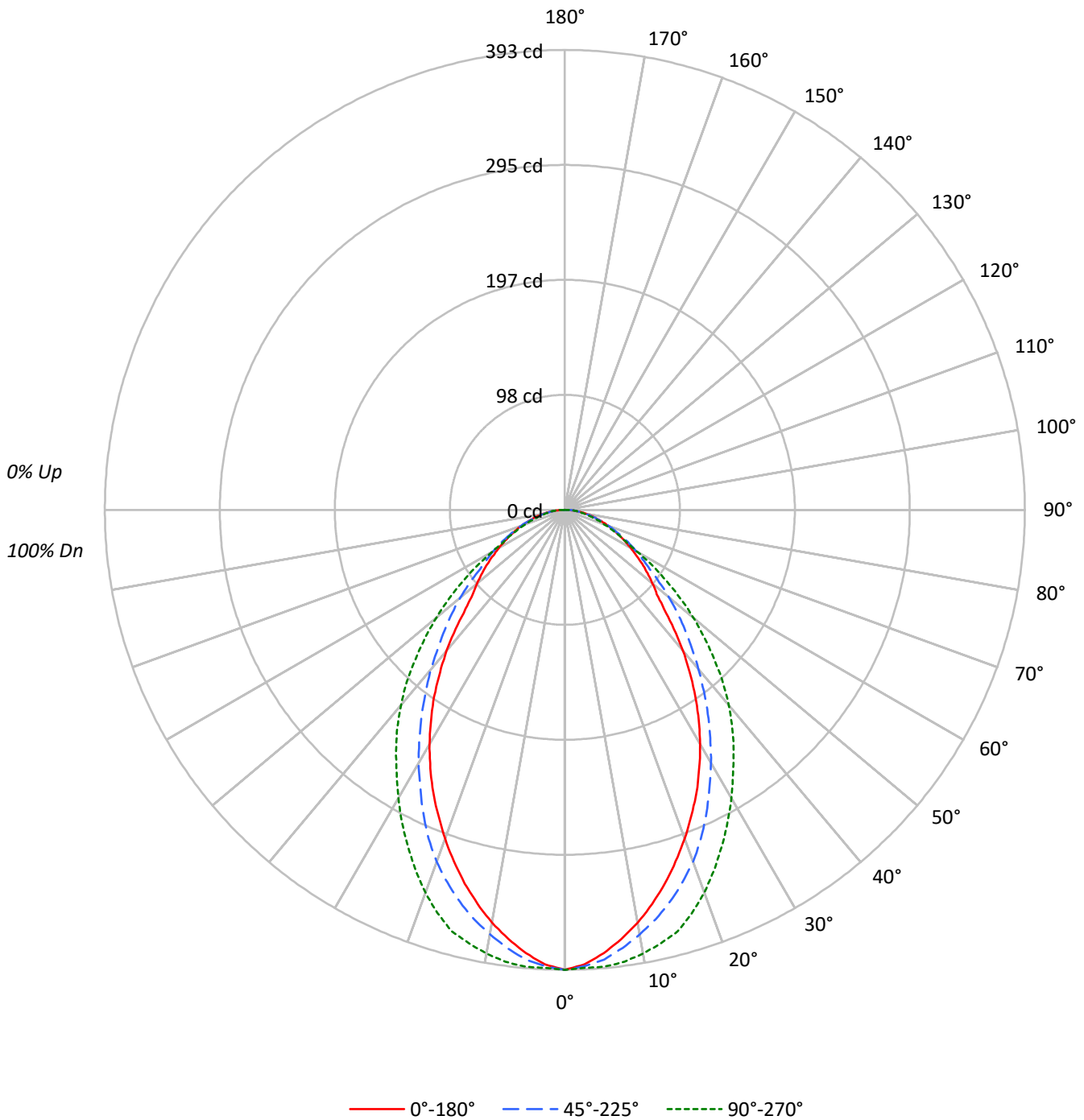
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 690.8 lumens  
Efficiency: N/A  
Efficacy: 59.0 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): 11.7  
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°	4616	4616	4616
5°	4483	4546	4618
10°	4272	4393	4591
15°	4018	4216	4532
20°	3738	3999	4350
25°	3450	3708	4111
30°	3133	3386	3858
35°	2788	3055	3604
40°	2407	2722	3340
45°	1989	2410	2994
50°	1787	2126	2614
55°	1656	1814	2168
60°	1527	1653	1660
65°	1420	1495	1392
70°	1336	1360	1219
75°	1257	1211	1075
80°	1190	1095	1008
85°	1145	1226	1145

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2994 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.4	5.3
10°-20°	98.1	14.2
20°-30°	132.7	19.2
30°-40°	136.4	19.7
40°-50°	114.5	16.6
50°-60°	82.1	11.9
60°-70°	52.3	7.6
70°-80°	28.7	4.2
80°-90°	9.6	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°	267.2	38.7
0°-40°	403.6	58.4
0°-60°	600.2	86.9
0°-90°	690.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	690.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	393	393	393	393	393	
5°	380	387	386	388	392	36
15°	330	340	347	362	373	93
25°	266	276	286	302	317	122
35°	194	205	213	232	251	121
45°	120	130	145	166	180	95
55°	81	82	89	100	106	72
65°	51	54	54	51	50	51
75°	28	30	27	25	24	29
85°	8	9	9	10	8	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	393.1	393.1	393.1	393.1	393.1
2.5°	388.7	394.1	390.4	390.8	391.8
5°	380.3	387.0	385.7	388.4	391.8
7.5°	369.8	377.2	377.6	384.0	389.4
10°	358.3	366.1	368.4	378.2	385.0
12.5°	344.7	353.2	358.3	370.5	379.3
15°	330.5	339.7	346.8	361.7	372.8
17.5°	315.0	324.8	333.9	349.8	361.3
20°	299.1	309.6	320.0	334.9	348.1
22.5°	282.5	293.3	304.1	318.7	333.2
25°	266.3	276.4	286.2	301.8	317.3
27.5°	248.7	259.2	267.6	284.9	301.1
30°	231.1	241.6	249.7	267.6	284.5
32.5°	212.8	223.6	231.1	249.7	267.3
35°	194.5	205.0	213.1	232.1	251.4
37.5°	175.2	186.8	194.9	216.2	235.1
40°	157.0	167.8	177.6	199.9	217.9
42.5°	138.0	149.2	160.4	183.4	199.9
45°	119.8	130.3	145.1	166.1	180.3
47.5°	106.6	113.3	130.6	148.2	161.7
50°	97.8	100.5	116.4	131.9	143.1
52.5°	89.0	91.0	101.8	116.0	124.5
55°	80.9	82.5	88.6	100.5	105.9
57.5°	72.1	73.8	78.8	85.6	88.6
60°	65.0	66.3	70.4	71.4	70.7
62.5°	57.9	59.9	61.9	59.5	58.5
65°	51.1	54.1	53.8	50.7	50.1
67.5°	45.0	48.0	46.3	43.3	42.3
70°	38.9	42.0	39.6	36.5	35.5
72.5°	33.2	36.5	32.8	30.1	29.4
75°	27.7	30.4	26.7	24.7	23.7
77.5°	22.7	24.7	21.3	19.6	18.9
80°	17.6	18.9	16.2	15.2	14.9
82.5°	12.9	13.5	11.8	12.5	12.2
85°	8.5	8.8	9.1	9.5	8.5
87.5°	4.1	5.8	5.8	5.4	4.4
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	12.50	13.97	12.87	14.28	14.59	13.57	15.03	13.93	15.35	15.66
	3H	14.20	15.51	14.58	15.84	16.20	14.65	15.96	15.03	16.29	16.65
	4H	14.85	16.08	15.25	16.43	16.81	15.05	16.28	15.45	16.63	17.01
	6H	15.36	16.49	15.77	16.86	17.25	15.36	16.50	15.78	16.86	17.26
	8H	15.53	16.61	15.96	17.00	17.40	15.50	16.58	15.93	16.97	17.37
	12H	15.65	16.69	16.09	17.07	17.50	15.62	16.65	16.05	17.03	17.46
4H	2H	13.10	14.33	13.50	14.68	15.06	13.97	15.20	14.37	15.55	15.93
	3H	15.03	16.05	15.44	16.45	16.85	15.29	16.31	15.70	16.71	17.11
	4H	15.84	16.76	16.27	17.17	17.61	15.81	16.72	16.24	17.14	17.58
	6H	16.49	17.28	16.95	17.73	18.19	16.24	17.04	16.70	17.48	17.94
	8H	16.71	17.45	17.17	17.90	18.37	16.43	17.18	16.90	17.62	18.09
	12H	16.88	17.55	17.37	18.03	18.50	16.61	17.28	17.10	17.76	18.23
8H	4H	16.08	16.82	16.54	17.27	17.73	16.05	16.80	16.52	17.24	17.71
	6H	16.86	17.48	17.36	17.97	18.45	16.60	17.22	17.10	17.71	18.19
	8H	17.18	17.73	17.69	18.24	18.73	16.88	17.43	17.39	17.94	18.43
	12H	17.45	17.94	17.96	18.43	18.99	17.17	17.66	17.68	18.15	18.72
12H	4H	16.09	16.75	16.57	17.23	17.70	16.08	16.74	16.56	17.22	17.70
	6H	16.90	17.45	17.41	17.96	18.45	16.65	17.21	17.17	17.72	18.21
	8H	17.27	17.76	17.78	18.25	18.82	16.99	17.48	17.50	17.97	18.54