

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: P1058346

Luminaire Tested: S122RDR-H290D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058346  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H290D940-X4F0-XX-UDD-WVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

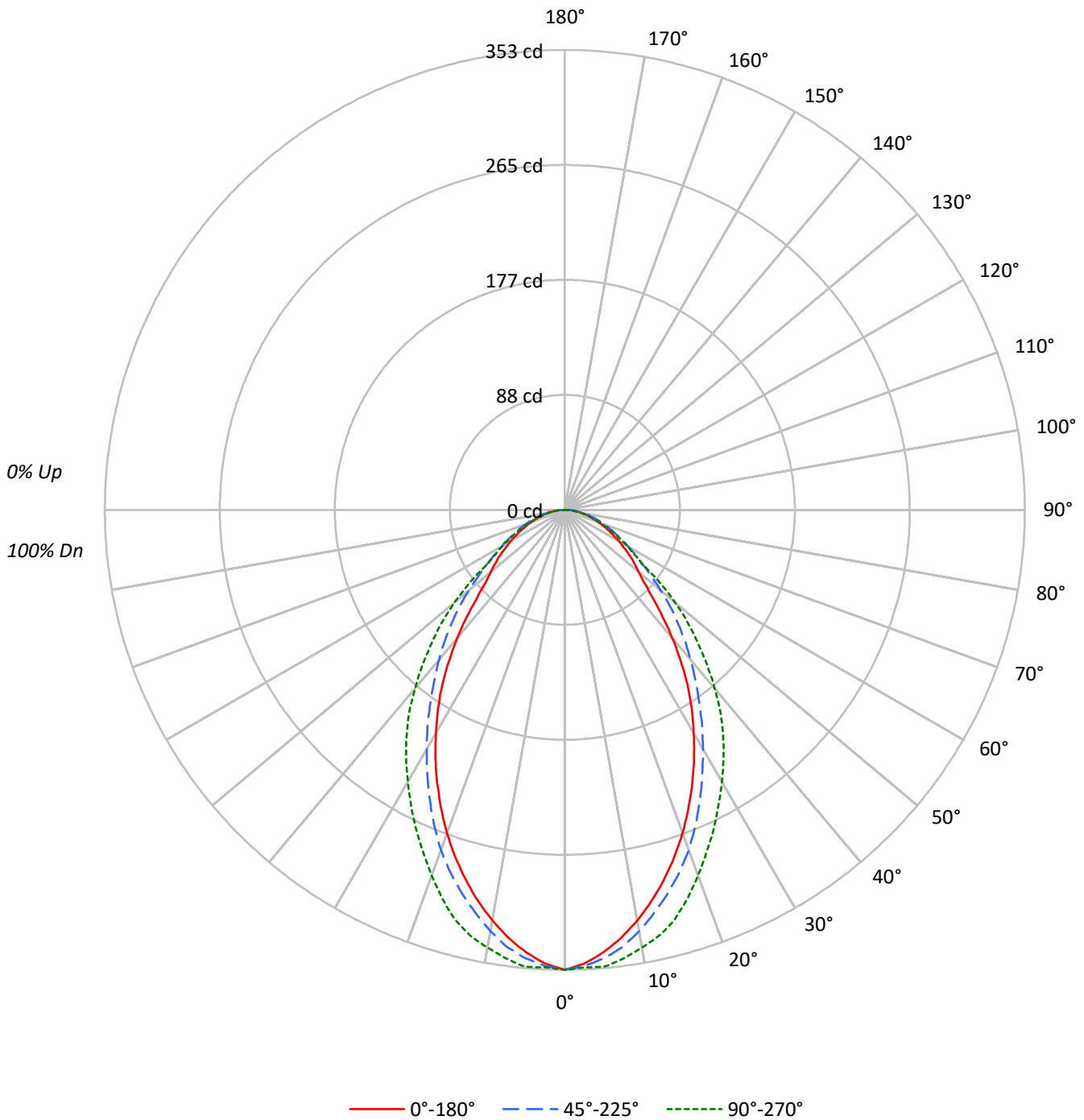
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 575.5 lumens  
Efficiency: N/A  
Efficacy: 49.2 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
Luminous Opening: Rectangular (W 0.15' 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	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67				
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59				
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	40	35	46	39	35	45	39	35	44	38	34	33				

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

	0°	45°	90°
0°	6514	6514	6514
5°	6314	6398	6518
10°	5996	6151	6393
15°	5613	5823	6222
20°	5188	5457	5865
25°	4713	4992	5503
30°	4215	4513	5135
35°	3694	4043	4771
40°	3090	3611	4307
45°	2476	3199	3763
50°	2124	2756	3161
55°	1943	2345	2332
60°	1764	2074	2030
65°	1607	1856	1773
70°	1473	1699	1575
75°	1383	1568	1383
80°	1286	1456	1211
85°	1291	1524	1037

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3763 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.6	5.7
10°-20°	86.3	15.0
20°-30°	113.8	19.8
30°-40°	114.6	19.9
40°-50°	93.3	16.2
50°-60°	63.6	11.1
60°-70°	41.3	7.2
70°-80°	22.7	3.9
80°-90°	7.4	1.3
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°	232.7	40.4
0°-40°	347.2	60.3
0°-60°	504.1	87.6
0°-90°	575.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	575.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	353	353	353	353	353	
5°	341	347	345	348	352	32
15°	294	301	305	317	326	82
25°	232	239	245	256	270	106
35°	164	172	180	195	212	102
45°	95	107	123	133	144	75
55°	60	66	73	73	72	54
65°	37	44	42	40	41	37
75°	19	24	22	20	19	21
85°	6	8	7	6	5	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	353.0	353.0	353.0	353.0	353.0
2.5°	348.5	354.1	350.4	350.7	351.5
5°	340.9	347.3	345.4	348.5	351.9
7.5°	331.4	337.8	338.6	343.1	347.3
10°	320.0	327.2	328.3	335.2	341.2
12.5°	307.5	315.4	316.9	326.8	334.8
15°	293.8	301.4	304.8	317.3	325.7
17.5°	279.4	286.6	291.9	303.3	312.8
20°	264.2	271.0	277.9	288.1	298.7
22.5°	247.9	255.5	261.9	272.2	284.3
25°	231.5	239.1	245.2	256.2	270.3
27.5°	214.8	222.4	228.5	240.3	255.5
30°	197.8	205.7	211.8	225.1	241.0
32.5°	181.1	189.0	195.9	209.9	226.6
35°	164.0	172.3	179.5	195.1	211.8
37.5°	145.8	155.2	164.4	179.9	196.2
40°	128.3	138.9	149.9	164.4	178.8
42.5°	110.8	122.6	136.3	148.4	161.7
45°	94.9	106.7	122.6	133.2	144.2
47.5°	82.4	92.2	109.3	118.0	127.9
50°	74.0	80.9	96.0	102.9	110.1
52.5°	67.2	72.9	83.5	88.1	91.9
55°	60.4	66.4	72.9	73.3	72.5
57.5°	53.5	60.4	63.8	61.1	62.6
60°	47.8	54.7	56.2	53.5	55.0
62.5°	41.8	49.3	49.3	46.7	47.4
65°	36.8	43.7	42.5	40.2	40.6
67.5°	31.9	38.7	36.8	34.5	34.5
70°	27.3	33.8	31.5	29.2	29.2
72.5°	23.2	28.5	27.0	24.3	23.9
75°	19.4	23.9	22.0	19.7	19.4
77.5°	15.6	19.4	17.8	15.9	15.2
80°	12.1	15.6	13.7	12.1	11.4
82.5°	9.1	11.8	10.2	8.7	8.0
85°	6.1	8.0	7.2	5.7	4.9
87.5°	3.0	5.3	4.6	3.8	3.0
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	13.23	14.67	13.60	14.99	15.30	13.48	14.91	13.84	15.23	15.54
	3H	14.76	16.05	15.14	16.38	16.74	14.83	16.12	15.21	16.45	16.81
	4H	15.32	16.53	15.72	16.88	17.26	15.31	16.52	15.71	16.87	17.25
	6H	15.75	16.86	16.16	17.23	17.62	15.66	16.77	16.07	17.14	17.53
	8H	15.90	16.96	16.33	17.35	17.75	15.77	16.83	16.20	17.22	17.62
	12H	16.01	17.02	16.44	17.41	17.84	15.84	16.85	16.27	17.23	17.66
4H	2H	13.80	15.01	14.21	15.36	15.74	14.00	15.20	14.40	15.55	15.93
	3H	15.61	16.61	16.02	17.01	17.41	15.57	16.57	15.98	16.97	17.37
	4H	16.35	17.25	16.78	17.66	18.10	16.17	17.06	16.60	17.48	17.92
	6H	16.94	17.72	17.40	18.16	18.62	16.63	17.41	17.09	17.86	18.32
	8H	17.15	17.88	17.61	18.32	18.79	16.78	17.51	17.25	17.96	18.43
	12H	17.31	17.96	17.80	18.44	18.91	16.89	17.54	17.38	18.02	18.49
8H	4H	16.61	17.34	17.08	17.79	18.26	16.46	17.19	16.92	17.63	18.10
	6H	17.37	17.97	17.87	18.47	18.94	17.05	17.65	17.54	18.14	18.62
	8H	17.70	18.24	18.21	18.75	19.24	17.27	17.81	17.78	18.32	18.81
	12H	17.98	18.46	18.49	18.95	19.52	17.45	17.93	17.96	18.42	18.99
12H	4H	16.63	17.28	17.11	17.76	18.23	16.49	17.14	16.97	17.62	18.09
	6H	17.42	17.96	17.93	18.47	18.96	17.11	17.65	17.63	18.17	18.66
	8H	17.81	18.29	18.33	18.78	19.35	17.40	17.88	17.91	18.37	18.94