

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: P1058355

Luminaire Tested: S122RDR-H290D950-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058355  
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-H290D950-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: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

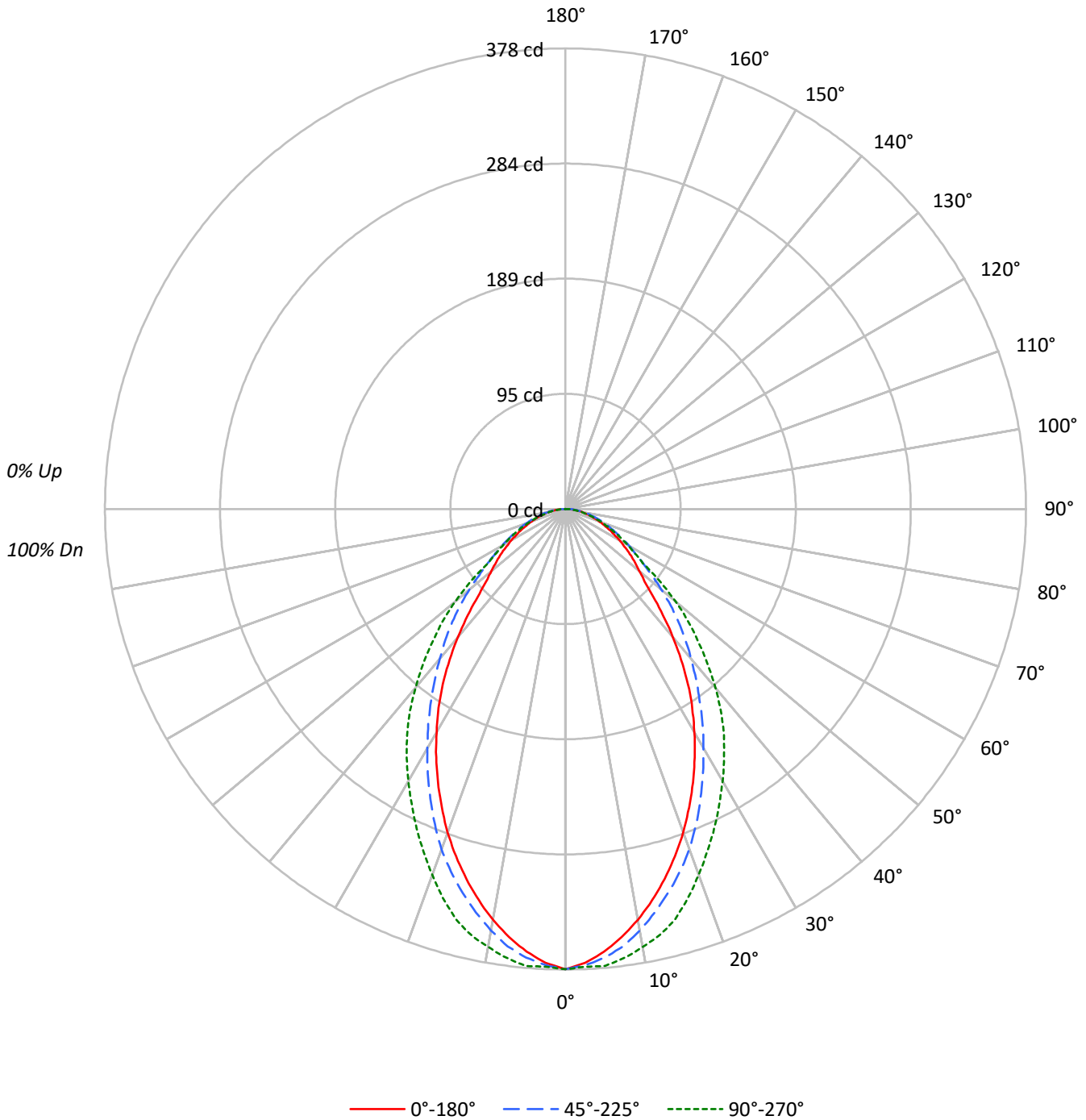
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 615.7 lumens  
Efficiency: N/A  
Efficacy: 52.6 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	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	99	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	39	35	46	39	35	45	39	35	44	38	34	33

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

	0°	45°	90°
0°	6969	6969	6969
5°	6755	6844	6972
10°	6414	6582	6841
15°	6004	6230	6656
20°	5549	5838	6276
25°	5043	5340	5886
30°	4509	4828	5495
35°	3951	4327	5104
40°	3307	3864	4608
45°	2649	3424	4027
50°	2274	2948	3382
55°	2078	2509	2496
60°	1890	2218	2174
65°	1720	1987	1899
70°	1575	1818	1689
75°	1476	1683	1476
80°	1381	1551	1296
85°	1376	1630	1122

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4027 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.9	5.7
10°-20°	92.3	15.0
20°-30°	121.7	19.8
30°-40°	122.6	19.9
40°-50°	99.8	16.2
50°-60°	68.0	11.1
60°-70°	44.2	7.2
70°-80°	24.3	3.9
80°-90°	7.9	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°	248.9	40.4
0°-40°	371.5	60.3
0°-60°	539.3	87.6
0°-90°	615.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	615.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	378	378	378	378	378	
5°	365	372	370	373	376	34
15°	314	322	326	340	348	88
25°	248	256	262	274	289	114
35°	175	184	192	209	227	109
45°	102	114	131	142	154	80
55°	65	71	78	78	78	58
65°	39	47	46	43	44	39
75°	21	26	24	21	21	22
85°	6	8	8	6	5	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	377.7	377.7	377.7	377.7	377.7
2.5°	372.8	378.9	374.8	375.2	376.0
5°	364.7	371.6	369.5	372.8	376.4
7.5°	354.5	361.4	362.2	367.1	371.6
10°	342.3	350.1	351.3	358.6	365.1
12.5°	328.9	337.5	339.1	349.6	358.2
15°	314.3	322.4	326.1	339.5	348.4
17.5°	298.9	306.6	312.3	324.5	334.6
20°	282.6	290.0	297.3	308.2	319.6
22.5°	265.2	273.3	280.2	291.2	304.2
25°	247.7	255.8	262.3	274.1	289.1
27.5°	229.8	238.0	244.5	257.1	273.3
30°	211.6	220.1	226.6	240.8	257.9
32.5°	193.7	202.2	209.5	224.6	242.4
35°	175.4	184.4	192.1	208.7	226.6
37.5°	155.9	166.1	175.8	192.5	209.9
40°	137.3	148.6	160.4	175.8	191.3
42.5°	118.6	131.2	145.8	158.8	173.0
45°	101.5	114.1	131.2	142.5	154.3
47.5°	88.1	98.7	117.0	126.3	136.9
50°	79.2	86.5	102.7	110.1	117.8
52.5°	71.9	78.0	89.3	94.2	98.3
55°	64.6	71.1	78.0	78.4	77.6
57.5°	57.3	64.6	68.2	65.4	67.0
60°	51.2	58.5	60.1	57.3	58.9
62.5°	44.7	52.8	52.8	49.9	50.8
65°	39.4	46.7	45.5	43.0	43.5
67.5°	34.1	41.4	39.4	37.0	37.0
70°	29.2	36.1	33.7	31.3	31.3
72.5°	24.8	30.5	28.8	26.0	25.6
75°	20.7	25.6	23.6	21.1	20.7
77.5°	16.6	20.7	19.1	17.1	16.2
80°	13.0	16.6	14.6	13.0	12.2
82.5°	9.7	12.6	11.0	9.3	8.5
85°	6.5	8.5	7.7	6.1	5.3
87.5°	3.2	5.7	4.9	4.1	3.2
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	13.47	14.91	13.83	15.22	15.53	13.71	15.15	14.08	15.46	15.78
	3H	14.99	16.28	15.37	16.61	16.97	15.07	16.36	15.45	16.69	17.05
	4H	15.55	16.76	15.96	17.11	17.49	15.55	16.76	15.95	17.11	17.49
	6H	15.98	17.09	16.39	17.46	17.85	15.90	17.01	16.31	17.38	17.77
	8H	16.13	17.19	16.56	17.58	17.98	16.01	17.07	16.44	17.46	17.86
	12H	16.24	17.25	16.67	17.64	18.07	16.08	17.09	16.51	17.47	17.90
4H	2H	14.04	15.24	14.44	15.59	15.97	14.24	15.44	14.64	15.79	16.17
	3H	15.84	16.84	16.25	17.24	17.64	15.81	16.81	16.23	17.21	17.62
	4H	16.58	17.48	17.02	17.90	18.34	16.41	17.30	16.84	17.72	18.16
	6H	17.17	17.95	17.63	18.39	18.85	16.88	17.65	17.33	18.10	18.56
	8H	17.38	18.11	17.84	18.55	19.02	17.02	17.75	17.49	18.20	18.67
	12H	17.54	18.19	18.02	18.67	19.14	17.13	17.78	17.62	18.26	18.73
8H	4H	16.85	17.58	17.31	18.02	18.49	16.70	17.43	17.16	17.87	18.34
	6H	17.60	18.20	18.10	18.70	19.17	17.29	17.89	17.79	18.38	18.86
	8H	17.93	18.47	18.44	18.98	19.47	17.51	18.05	18.02	18.56	19.05
	12H	18.21	18.68	18.72	19.18	19.74	17.69	18.17	18.20	18.66	19.23
12H	4H	16.86	17.51	17.35	17.99	18.46	16.73	17.38	17.21	17.86	18.33
	6H	17.65	18.19	18.16	18.70	19.19	17.35	17.90	17.87	18.41	18.90
	8H	18.04	18.52	18.55	19.01	19.58	17.64	18.12	18.15	18.61	19.18