

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: P1058484

Luminaire Tested: S122RDR-H675D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058484  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H675D930-X4F0-XX-UDD-BVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

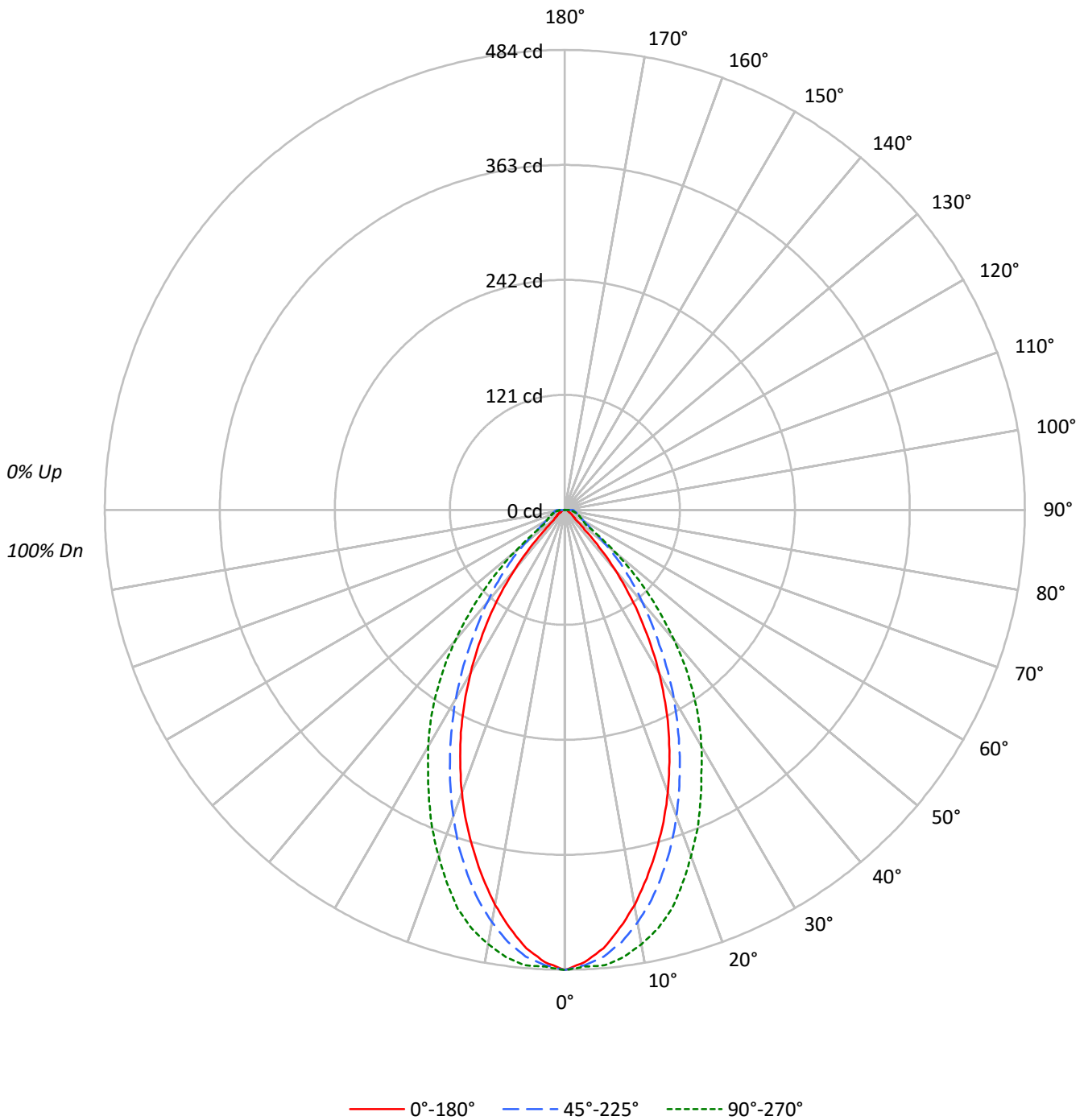
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 527.0 lumens  
Efficiency: N/A  
Efficacy: 22.4 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

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

	0°	45°	90°
0°	8935	8935	8935
5°	8582	8739	8911
10°	7911	8259	8694
15°	7089	7576	8302
20°	6221	6739	7621
25°	5267	5821	6878
30°	4225	4886	6124
35°	3124	3908	5305
40°	1958	3059	4309
45°	767	2304	3194
50°	379	1556	1958
55°	299	1023	872
60°	229	830	801
65°	170	777	777
70°	210	793	793
75°	221	884	827
80°	329	1148	903
85°	656	1969	1313

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 3596 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.2	8.4
10°-20°	111.8	21.2
20°-30°	133.7	25.4
30°-40°	112.6	21.4
40°-50°	64.1	12.2
50°-60°	25.3	4.8
60°-70°	15.9	3.0
70°-80°	11.8	2.2
80°-90°	7.5	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°	289.8	55.0
0°-40°	402.3	76.3
0°-60°	491.7	93.3
0°-90°	527.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	527.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	484	484	484	484	484	
5°	463	473	472	477	481	43
15°	371	384	397	420	435	104
25°	259	270	286	315	338	118
35°	139	151	174	211	236	86
45°	29	52	88	111	122	28
55°	9	20	32	32	27	8
65°	4	18	18	17	18	4
75°	3	12	12	12	12	3
85°	3	8	9	8	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	484.2	484.2	484.2	484.2	484.2
2.5°	476.4	484.9	479.5	480.3	481.1
5°	463.3	473.3	471.8	477.2	481.1
7.5°	443.9	454.7	458.6	467.9	474.9
10°	422.2	434.6	440.8	455.5	464.0
12.5°	397.4	411.4	420.6	439.2	451.6
15°	371.1	384.2	396.6	419.9	434.6
17.5°	344.7	357.9	371.1	396.6	412.1
20°	316.8	329.2	343.2	370.3	388.1
22.5°	287.4	300.6	314.5	342.4	364.1
25°	258.7	270.4	285.9	315.3	337.8
27.5°	228.5	240.1	257.2	287.4	311.4
30°	198.3	209.9	229.3	260.3	287.4
32.5°	168.1	180.5	201.4	235.5	262.6
35°	138.7	151.1	173.5	210.7	235.5
37.5°	110.0	123.9	148.7	185.1	208.4
40°	81.3	97.6	127.0	159.6	178.9
42.5°	54.2	74.4	106.9	134.0	150.3
45°	29.4	51.9	88.3	110.8	122.4
47.5°	16.3	33.3	70.5	88.3	95.3
50°	13.2	23.2	54.2	67.4	68.2
52.5°	10.8	20.9	40.3	48.0	44.2
55°	9.3	20.1	31.8	32.5	27.1
57.5°	7.7	19.4	26.3	23.2	23.2
60°	6.2	19.4	22.5	20.9	21.7
62.5°	4.6	19.4	20.1	18.6	19.4
65°	3.9	17.8	17.8	17.0	17.8
67.5°	3.9	16.3	16.3	15.5	16.3
70°	3.9	15.5	14.7	14.7	14.7
72.5°	3.1	13.9	13.9	13.2	13.2
75°	3.1	12.4	12.4	11.6	11.6
77.5°	3.1	11.6	11.6	10.8	10.1
80°	3.1	10.1	10.8	10.1	8.5
82.5°	3.1	9.3	10.1	9.3	7.0
85°	3.1	8.5	9.3	8.5	6.2
87.5°	2.3	8.5	8.5	7.0	4.6
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	5.31	6.53	5.67	6.84	7.16	7.31	8.53	7.68	8.85	9.16
	3H	6.86	7.94	7.24	8.27	8.64	9.29	10.38	9.67	10.71	11.07
	4H	7.41	8.42	7.81	8.77	9.16	10.21	11.22	10.61	11.57	11.96
	6H	7.96	8.89	8.38	9.27	9.66	11.09	12.02	11.51	12.39	12.79
	8H	8.26	9.14	8.69	9.53	9.94	11.50	12.38	11.93	12.77	13.18
	12H	8.62	9.46	9.05	9.84	10.27	11.94	12.78	12.37	13.17	13.60
4H	2H	6.49	7.50	6.89	7.85	8.24	7.93	8.95	8.34	9.30	9.68
	3H	8.69	9.52	9.10	9.93	10.33	10.18	11.02	10.60	11.42	11.83
	4H	9.74	10.49	10.18	10.91	11.35	11.25	12.00	11.69	12.42	12.87
	6H	10.64	11.28	11.10	11.73	12.20	12.37	13.01	12.83	13.46	13.93
	8H	11.02	11.63	11.49	12.08	12.55	12.89	13.50	13.36	13.95	14.42
	12H	11.44	11.98	11.93	12.46	12.94	13.47	14.00	13.96	14.49	14.96
8H	4H	10.54	11.15	11.01	11.59	12.07	11.75	12.35	12.22	12.80	13.27
	6H	11.92	12.42	12.43	12.92	13.40	13.15	13.64	13.65	14.14	14.62
	8H	12.64	13.09	13.17	13.61	14.10	13.89	14.33	14.41	14.85	15.34
	12H	13.39	13.79	13.91	14.28	14.85	14.72	15.11	15.24	15.61	16.18
12H	4H	10.70	11.24	11.19	11.72	12.20	11.85	12.38	12.33	12.87	13.34
	6H	12.25	12.70	12.78	13.22	13.71	13.36	13.81	13.89	14.33	14.82
	8H	13.17	13.57	13.69	14.06	14.63	14.25	14.65	14.77	15.14	15.71