

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058466

Luminaire Tested: S122RDRP-H675D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058466  
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: S122RDRP-H675D850-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: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

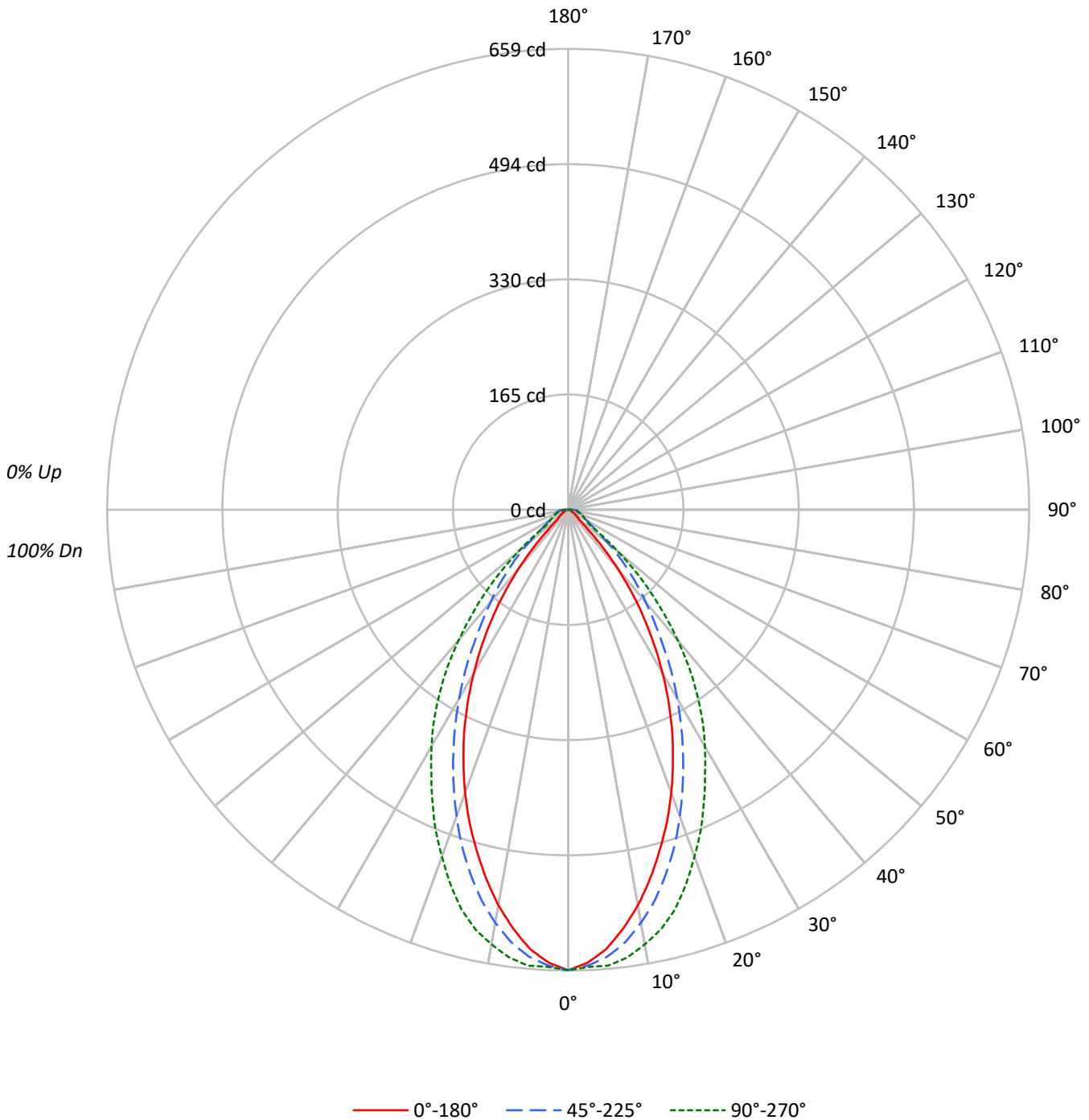
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 716.8 lumens  
Efficiency: N/A  
Efficacy: 30.5 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 (A<sub>in</sub>): 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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					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°	12153	12153	12153
5°	11671	11886	12121
10°	10761	11235	11827
15°	9641	10306	11292
20°	8463	9166	10366
25°	7167	7916	9353
30°	5749	6646	8329
35°	4248	5316	7215
40°	2664	4162	5863
45°	1044	3134	4345
50°	514	2119	2661
55°	405	1390	1187
60°	310	1129	1089
65°	231	1057	1057
70°	286	1079	1079
75°	299	1205	1126
80°	446	1573	1233
85°	889	2668	1778

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 4907 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.1	8.4
10°-20°	152.1	21.2
20°-30°	181.9	25.4
30°-40°	153.1	21.4
40°-50°	87.2	12.2
50°-60°	34.4	4.8
60°-70°	21.6	3.0
70°-80°	16.1	2.2
80°-90°	10.2	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°	394.2	55.0
0°-40°	547.3	76.3
0°-60°	668.8	93.3
0°-90°	716.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	716.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	659	659	659	659	659	
5°	630	644	642	649	654	58
15°	505	523	540	571	591	141
25°	352	368	389	429	459	160
35°	189	206	236	287	320	117
45°	40	71	120	151	166	38
55°	13	27	43	44	37	11
65°	5	24	24	23	24	6
75°	4	17	17	16	16	5
85°	4	12	13	12	8	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	658.6	658.6	658.6	658.6	658.6
2.5°	648.1	659.6	652.3	653.3	654.4
5°	630.1	643.8	641.7	649.1	654.4
7.5°	603.8	618.5	623.8	636.5	645.9
10°	574.3	591.1	599.6	619.6	631.2
12.5°	540.6	559.5	572.2	597.5	614.3
15°	504.7	522.7	539.5	571.1	591.1
17.5°	468.9	486.8	504.7	539.5	560.6
20°	431.0	447.8	466.8	503.7	527.9
22.5°	390.9	408.9	427.8	465.8	495.3
25°	352.0	367.8	388.8	428.9	459.4
27.5°	310.9	326.7	349.8	390.9	423.6
30°	269.8	285.6	311.9	354.1	390.9
32.5°	228.7	245.5	274.0	320.3	357.2
35°	188.6	205.5	236.0	286.6	320.3
37.5°	149.6	168.6	202.3	251.8	283.5
40°	110.6	132.8	172.8	217.1	243.4
42.5°	73.8	101.2	145.4	182.3	204.4
45°	40.0	70.6	120.1	150.7	166.5
47.5°	22.1	45.3	95.9	120.1	129.6
50°	17.9	31.6	73.8	91.7	92.7
52.5°	14.8	28.5	54.8	65.3	60.1
55°	12.6	27.4	43.2	44.3	36.9
57.5°	10.5	26.3	35.8	31.6	31.6
60°	8.4	26.3	30.6	28.5	29.5
62.5°	6.3	26.3	27.4	25.3	26.3
65°	5.3	24.2	24.2	23.2	24.2
67.5°	5.3	22.1	22.1	21.1	22.1
70°	5.3	21.1	20.0	20.0	20.0
72.5°	4.2	19.0	19.0	17.9	17.9
75°	4.2	16.9	16.9	15.8	15.8
77.5°	4.2	15.8	15.8	14.8	13.7
80°	4.2	13.7	14.8	13.7	11.6
82.5°	4.2	12.6	13.7	12.6	9.5
85°	4.2	11.6	12.6	11.6	8.4
87.5°	3.2	11.6	11.6	9.5	6.3
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	6.36	7.58	6.72	7.89	8.21	8.39	9.61	8.76	9.92	10.24
	3H	7.91	8.99	8.29	9.32	9.69	10.36	11.45	10.74	11.78	12.15
	4H	8.46	9.48	8.87	9.83	10.21	11.28	12.29	11.68	12.64	13.03
	6H	9.02	9.95	9.44	10.32	10.72	12.16	13.09	12.58	13.47	13.86
	8H	9.31	10.19	9.74	10.58	10.99	12.57	13.45	13.00	13.84	14.25
	12H	9.67	10.51	10.10	10.90	11.33	13.01	13.85	13.44	14.23	14.66
4H	2H	7.54	8.56	7.95	8.91	9.29	9.01	10.02	9.41	10.37	10.76
	3H	9.75	10.59	10.17	10.99	11.40	11.25	12.09	11.67	12.49	12.90
	4H	10.81	11.56	11.25	11.98	12.42	12.33	13.07	12.76	13.49	13.94
	6H	11.70	12.35	12.17	12.80	13.27	13.44	14.09	13.90	14.53	15.00
	8H	12.09	12.69	12.56	13.14	13.61	13.96	14.57	14.43	15.02	15.49
	12H	12.51	13.04	12.99	13.52	14.00	14.54	15.07	15.02	15.56	16.03
8H	4H	11.61	12.22	12.08	12.67	13.14	12.82	13.43	13.29	13.87	14.35
	6H	12.99	13.49	13.50	13.99	14.47	14.22	14.72	14.72	15.21	15.70
	8H	13.71	14.15	14.23	14.67	15.16	14.96	15.40	15.48	15.92	16.41
	12H	14.46	14.85	14.97	15.35	15.92	15.79	16.18	16.30	16.68	17.25
12H	4H	11.78	12.31	12.26	12.79	13.27	12.92	13.46	13.41	13.94	14.41
	6H	13.32	13.77	13.85	14.29	14.78	14.44	14.88	14.96	15.40	15.89
	8H	14.24	14.63	14.75	15.13	15.70	15.32	15.71	15.84	16.21	16.78