

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: P1058502

Luminaire Tested: S122RDR-H675D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058502  
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-H675D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

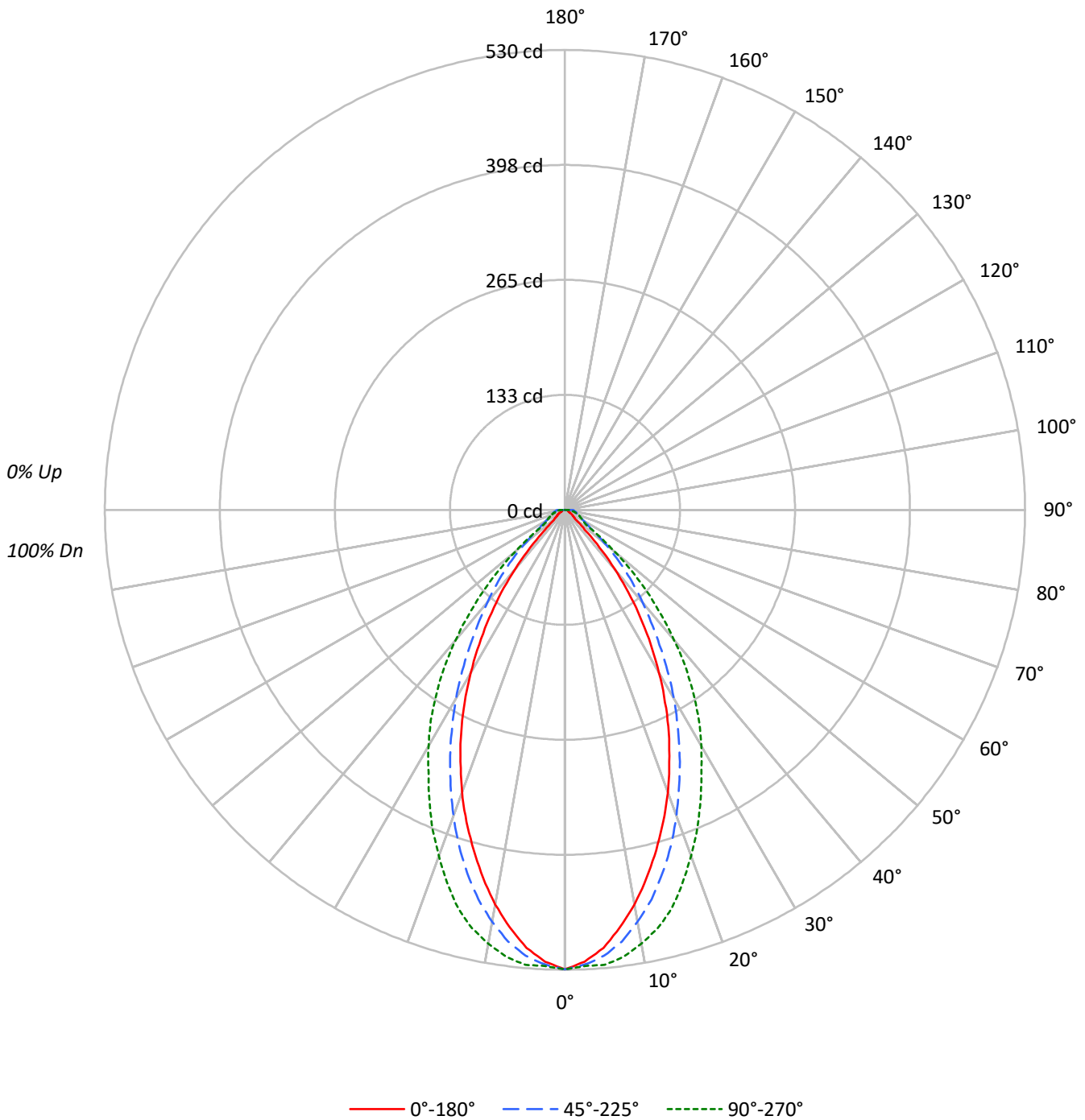
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 576.4 lumens  
Efficiency: N/A  
Efficacy: 24.5 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 (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									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	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°	9771	9771	9771
5°	9386	9558	9747
10°	8653	9033	9509
15°	7752	8287	9080
20°	6804	7370	8336
25°	5762	6365	7521
30°	4622	5344	6697
35°	3417	4275	5803
40°	2144	3348	4714
45°	840	2521	3494
50°	413	1702	2142
55°	328	1116	955
60°	251	908	875
65°	183	851	851
70°	227	869	869
75°	242	970	905
80°	361	1265	988
85°	720	2160	1440

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 3934 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.4	8.4
10°-20°	122.3	21.2
20°-30°	146.3	25.4
30°-40°	123.1	21.4
40°-50°	70.1	12.2
50°-60°	27.7	4.8
60°-70°	17.4	3.0
70°-80°	12.9	2.2
80°-90°	8.2	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°	316.9	55.0
0°-40°	440.0	76.3
0°-60°	537.8	93.3
0°-90°	576.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	576.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	530	530	530	530	530	
5°	507	518	516	522	526	47
15°	406	420	434	459	475	113
25°	283	296	313	345	369	129
35°	152	165	190	230	258	94
45°	32	57	97	121	134	30
55°	10	22	35	36	30	9
65°	4	20	20	19	20	5
75°	3	14	14	13	13	4
85°	3	9	10	9	7	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	529.5	529.5	529.5	529.5	529.5
2.5°	521.1	530.4	524.5	525.3	526.2
5°	506.7	517.7	516.0	521.9	526.2
7.5°	485.5	497.4	501.6	511.8	519.4
10°	461.8	475.3	482.1	498.2	507.5
12.5°	434.7	449.9	460.1	480.4	494.0
15°	405.8	420.3	433.8	459.2	475.3
17.5°	377.0	391.4	405.8	433.8	450.8
20°	346.5	360.1	375.3	405.0	424.5
22.5°	314.3	328.7	344.0	374.5	398.2
25°	283.0	295.7	312.6	344.8	369.4
27.5°	249.9	262.7	281.3	314.3	340.6
30°	216.9	229.6	250.8	284.7	314.3
32.5°	183.9	197.4	220.3	257.6	287.2
35°	151.7	165.2	189.8	230.5	257.6
37.5°	120.3	135.6	162.7	202.5	227.9
40°	89.0	106.8	139.0	174.5	195.7
42.5°	59.3	81.3	116.9	146.6	164.4
45°	32.2	56.8	96.6	121.2	133.9
47.5°	17.8	36.4	77.1	96.6	104.2
50°	14.4	25.4	59.3	73.7	74.6
52.5°	11.9	22.9	44.1	52.5	48.3
55°	10.2	22.0	34.7	35.6	29.7
57.5°	8.5	21.2	28.8	25.4	25.4
60°	6.8	21.2	24.6	22.9	23.7
62.5°	5.1	21.2	22.0	20.3	21.2
65°	4.2	19.5	19.5	18.6	19.5
67.5°	4.2	17.8	17.8	16.9	17.8
70°	4.2	16.9	16.1	16.1	16.1
72.5°	3.4	15.3	15.3	14.4	14.4
75°	3.4	13.6	13.6	12.7	12.7
77.5°	3.4	12.7	12.7	11.9	11.0
80°	3.4	11.0	11.9	11.0	9.3
82.5°	3.4	10.2	11.0	10.2	7.6
85°	3.4	9.3	10.2	9.3	6.8
87.5°	2.5	9.3	9.3	7.6	5.1
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	5.62	6.84	5.98	7.15	7.47	7.63	8.85	8.00	9.16	9.48
	3H	7.15	8.24	7.53	8.57	8.93	9.60	10.69	9.98	11.02	11.39
	4H	7.71	8.72	8.12	9.08	9.46	10.52	11.53	10.92	11.88	12.27
	6H	8.27	9.20	8.69	9.57	9.97	11.40	12.33	11.82	12.70	13.10
	8H	8.57	9.45	9.00	9.84	10.24	11.80	12.69	12.24	13.08	13.48
	12H	8.93	9.77	9.36	10.15	10.58	12.25	13.09	12.68	13.47	13.90
4H	2H	6.80	7.81	7.21	8.17	8.55	8.25	9.26	8.66	9.62	10.00
	3H	9.00	9.83	9.41	10.24	10.64	10.50	11.33	10.91	11.74	12.14
	4H	10.06	10.80	10.49	11.23	11.67	11.57	12.32	12.00	12.74	13.18
	6H	10.95	11.60	11.41	12.04	12.51	12.68	13.33	13.14	13.77	14.24
	8H	11.34	11.94	11.81	12.39	12.86	13.20	13.81	13.67	14.26	14.73
	12H	11.76	12.29	12.25	12.78	13.25	13.78	14.31	14.27	14.80	15.27
8H	4H	10.86	11.46	11.33	11.91	12.38	12.06	12.67	12.53	13.12	13.59
	6H	12.24	12.73	12.74	13.23	13.71	13.46	13.96	13.96	14.46	14.94
	8H	12.96	13.41	13.48	13.92	14.42	14.20	14.65	14.72	15.16	15.66
	12H	13.71	14.10	14.23	14.60	15.17	15.03	15.43	15.55	15.92	16.50
12H	4H	11.02	11.56	11.51	12.04	12.52	12.16	12.70	12.65	13.18	13.66
	6H	12.57	13.02	13.09	13.53	14.03	13.68	14.12	14.20	14.64	15.13
	8H	13.49	13.88	14.00	14.38	14.95	14.57	14.96	15.08	15.45	16.03