

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: P1058500

Luminaire Tested: S122RDRP-H675D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058500  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H675D940-X4F0-XX-UDD-BVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

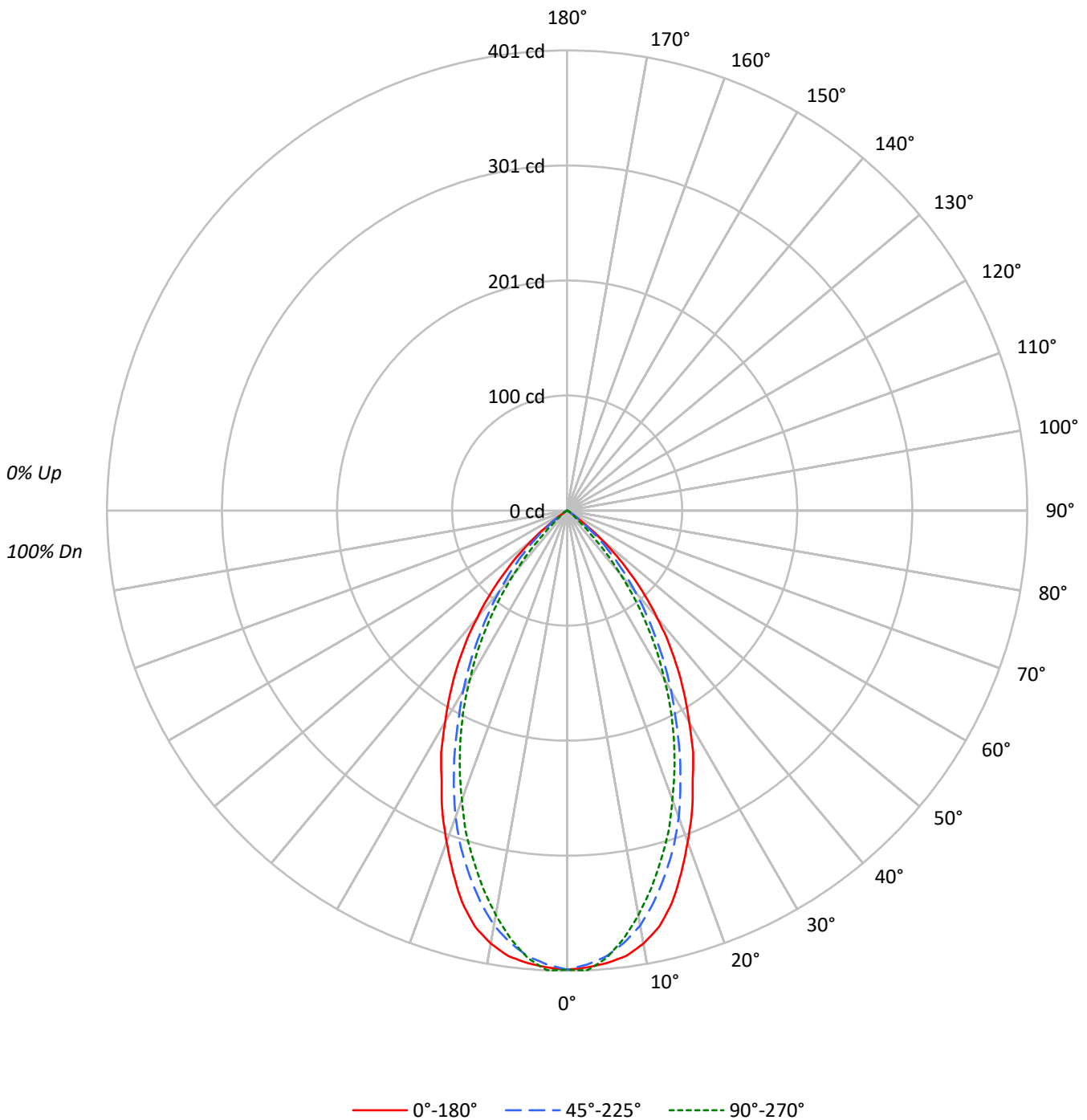
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 376.2 lumens  
Efficiency: N/A  
Efficacy: 16.0 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88  
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95				93	
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87				86	
3	101	95	90	85	99	93	89	85	91	87	83	88	85	82	86	83	81				79	
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75				73	
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69				67	
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64				62	
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60				58	
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56				54	
9	73	63	57	53	72	62	57	52	61	56	52	61	56	52	60	55	52				51	
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49				47	

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

	0°	45°	90°
0°	7383	7383	7383
5°	7333	7224	7254
10°	7180	6878	6704
15°	6755	6285	6027
20°	6030	5581	5265
25°	5269	4719	4477
30°	4523	3857	3605
35°	3773	3010	2705
40°	2934	2221	1732
45°	2054	1480	752
50°	1117	778	267
55°	164	273	190
60°	30	63	125
65°	0	35	74
70°	0	0	43
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2054 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.7	9.8
10°-20°	92.6	24.6
20°-30°	108.0	28.7
30°-40°	86.5	23.0
40°-50°	43.0	11.4
50°-60°	8.5	2.3
60°-70°	0.7	0.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	237.4	63.1
0°-40°	323.9	86.1
0°-60°	375.4	99.8
0°-90°	376.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	376.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	400	400	400	400	400	
5°	396	396	390	391	392	37
15°	354	347	329	321	316	98
25°	259	246	232	227	220	119
35°	168	151	134	128	120	104
45°	79	69	57	38	29	61
55°	5	10	8	5	6	10
65°	0	0	1	1	2	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	400.1	400.1	400.1	400.1	400.1
2.5°	398.4	400.1	395.9	400.1	400.9
5°	395.9	395.9	390.0	390.8	391.6
7.5°	391.6	390.0	379.8	378.1	376.4
10°	383.2	379.8	367.1	360.3	357.8
12.5°	371.3	366.3	349.3	341.7	337.5
15°	353.6	346.8	329.0	320.6	315.5
17.5°	330.7	324.8	307.9	298.6	293.5
20°	307.1	298.6	284.2	274.9	268.1
22.5°	284.2	273.2	258.0	251.2	244.5
25°	258.8	246.2	231.8	226.7	219.9
27.5°	237.7	221.6	204.7	201.3	195.4
30°	212.3	197.1	181.0	175.9	169.2
32.5°	190.3	173.4	157.3	151.4	145.5
35°	167.5	150.6	133.6	127.7	120.1
37.5°	145.5	129.4	112.5	103.2	96.4
40°	121.8	108.3	92.2	80.4	71.9
42.5°	100.7	88.8	73.6	58.4	49.9
45°	78.7	69.4	56.7	38.1	28.8
47.5°	58.4	51.6	41.4	22.0	15.2
50°	38.9	36.4	27.1	11.0	9.3
52.5°	21.1	22.8	16.1	6.8	7.6
55°	5.1	10.2	8.5	5.1	5.9
57.5°	0.8	1.7	4.2	4.2	4.2
60°	0.8	0.8	1.7	2.5	3.4
62.5°	0.8	0.0	0.8	1.7	2.5
65°	0.0	0.0	0.8	0.8	1.7
67.5°	0.0	0.0	0.0	0.8	0.8
70°	0.0	0.0	0.0	0.8	0.8
72.5°	0.0	0.0	0.0	0.0	0.8
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00