

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: P1058503

Luminaire Tested: S122RDR-H675D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058503  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H675D940-X4F0-XX-UDD-SVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

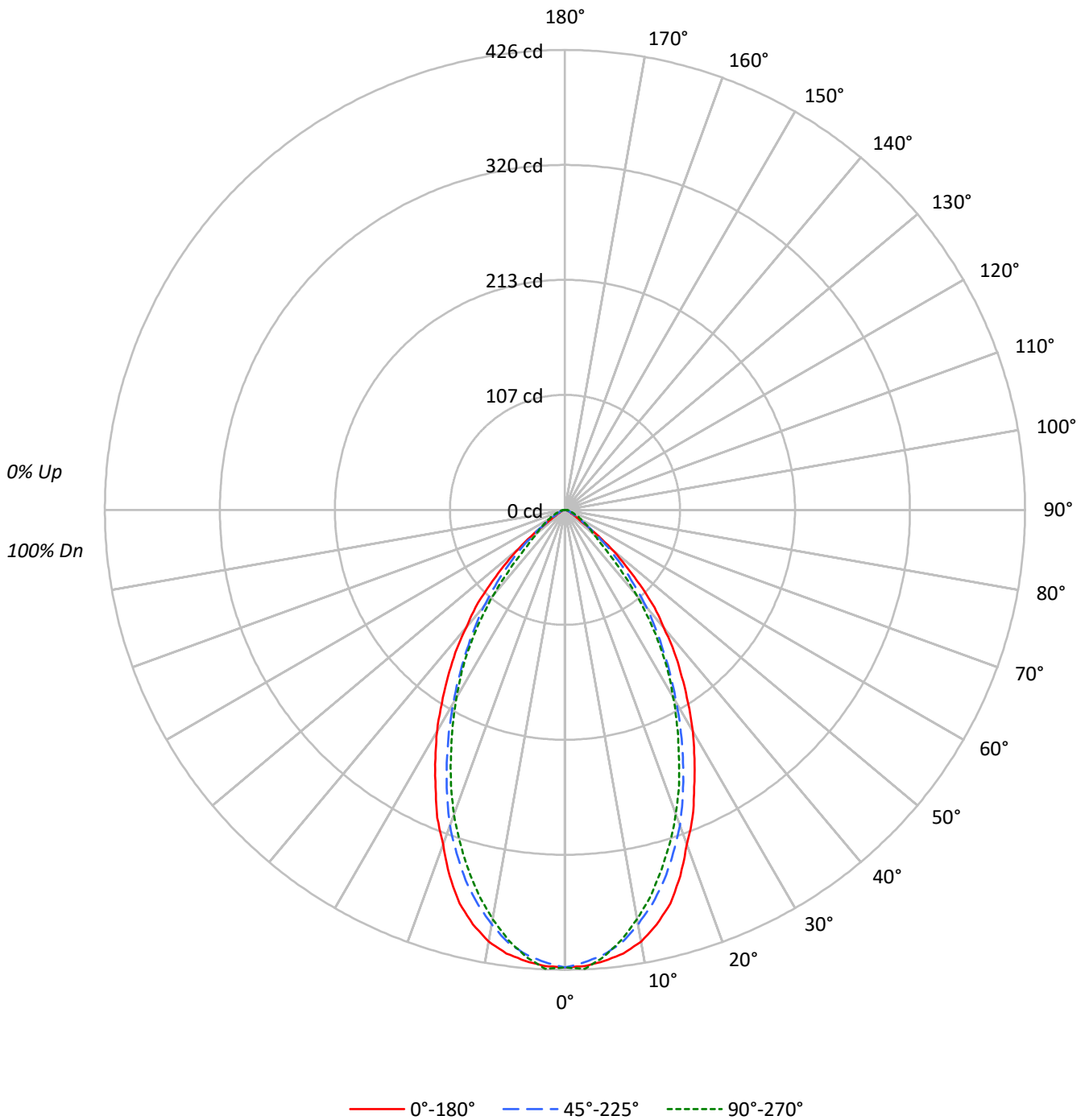
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 455.7 lumens  
Efficiency: N/A  
Efficacy: 19.4 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.85 / 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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44

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

	0°	45°	90°
0°	7820	7820	7820
5°	7770	7661	7693
10°	7607	7306	7212
15°	7206	6787	6593
20°	6478	6113	5897
25°	5770	5269	5080
30°	5046	4398	4272
35°	4248	3564	3449
40°	3423	2811	2486
45°	2560	2030	1480
50°	1602	1312	970
55°	544	708	788
60°	314	435	624
65°	223	297	480
70°	183	227	367
75°	121	178	299
80°	85	181	266
85°	0	0	169

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2560 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.1	8.6
10°-20°	100.0	21.9
20°-30°	120.4	26.4
30°-40°	102.9	22.6
40°-50°	60.3	13.2
50°-60°	21.8	4.8
60°-70°	7.7	1.7
70°-80°	3.1	0.7
80°-90°	0.5	0.1
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°	259.4	56.9
0°-40°	362.3	79.5
0°-60°	444.4	97.5
0°-90°	455.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	455.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	424	424	424	424	424	
5°	420	420	414	415	415	40
15°	377	371	355	348	345	105
25°	283	272	259	255	250	130
35°	189	174	158	156	153	118
45°	98	88	78	65	57	76
55°	17	24	22	23	24	21
65°	5	6	7	9	11	5
75°	2	2	2	3	4	2
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	423.8	423.8	423.8	423.8	423.8
2.5°	422.9	423.8	419.5	423.8	425.5
5°	419.5	420.4	413.6	415.3	415.3
7.5°	414.5	413.6	404.3	402.6	401.8
10°	406.0	403.5	389.9	387.4	384.9
12.5°	393.3	388.2	373.9	369.6	366.3
15°	377.2	371.3	355.3	348.5	345.1
17.5°	355.3	348.5	333.3	326.5	323.1
20°	329.9	323.1	311.3	303.7	300.3
22.5°	308.7	297.7	285.1	280.0	275.7
25°	283.4	271.5	258.8	254.6	249.5
27.5°	259.7	245.3	232.6	229.2	225.0
30°	236.8	221.6	206.4	206.4	200.5
32.5°	212.3	197.9	181.9	181.0	177.6
35°	188.6	174.2	158.2	156.5	153.1
37.5°	166.6	152.3	137.0	132.0	127.7
40°	142.1	129.4	116.7	108.3	103.2
42.5°	122.6	108.3	95.6	85.4	78.7
45°	98.1	88.0	77.8	65.1	56.7
47.5°	76.1	69.4	60.9	46.5	42.3
50°	55.8	52.4	45.7	34.7	33.8
52.5°	35.5	37.2	33.0	27.1	29.6
55°	16.9	23.7	22.0	22.8	24.5
57.5°	11.0	11.8	16.1	18.6	20.3
60°	8.5	8.5	11.8	15.2	16.9
62.5°	6.8	6.8	9.3	12.7	13.5
65°	5.1	5.9	6.8	9.3	11.0
67.5°	4.2	4.2	5.1	7.6	8.5
70°	3.4	3.4	4.2	5.9	6.8
72.5°	2.5	2.5	3.4	5.1	5.1
75°	1.7	2.5	2.5	3.4	4.2
77.5°	1.7	1.7	1.7	2.5	3.4
80°	0.8	0.8	1.7	1.7	2.5
82.5°	0.8	0.8	0.8	0.8	1.7
85°	0.0	0.0	0.0	0.8	0.8
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	3.01	4.17	3.38	4.49	4.80	6.42	7.59	6.79	7.90	8.21
	3H	3.53	4.55	3.91	4.89	5.25	7.15	8.18	7.54	8.51	8.87
	4H	3.66	4.61	4.07	4.96	5.35	7.37	8.32	7.78	8.67	9.06
	6H	3.74	4.60	4.15	4.98	5.37	7.52	8.39	7.94	8.76	9.16
	8H	3.74	4.55	4.17	4.95	5.35	7.55	8.37	7.98	8.76	9.17
	12H	3.70	4.48	4.13	4.86	5.29	7.55	8.33	7.98	8.71	9.14
4H	2H	3.33	4.28	3.73	4.63	5.01	6.39	7.34	6.80	7.69	8.08
	3H	3.99	4.75	4.40	5.16	5.57	7.27	8.04	7.68	8.44	8.85
	4H	4.22	4.90	4.66	5.33	5.77	7.55	8.23	7.99	8.66	9.10
	6H	4.34	4.92	4.80	5.37	5.84	7.77	8.36	8.24	8.81	9.28
	8H	4.34	4.89	4.82	5.34	5.81	7.82	8.36	8.29	8.81	9.28
	12H	4.31	4.79	4.80	5.27	5.75	7.83	8.31	8.32	8.80	9.27
8H	4H	4.33	4.87	4.80	5.32	5.80	7.48	8.03	7.95	8.47	8.95
	6H	4.49	4.93	5.00	5.43	5.91	7.74	8.18	8.24	8.68	9.16
	8H	4.52	4.92	5.05	5.44	5.93	7.79	8.19	8.32	8.71	9.20
	12H	4.50	4.84	5.02	5.34	5.92	7.85	8.20	8.37	8.69	9.27
12H	4H	4.31	4.79	4.80	5.28	5.75	7.43	7.91	7.92	8.40	8.87
	6H	4.49	4.88	5.01	5.40	5.89	7.69	8.08	8.21	8.60	9.10
	8H	4.55	4.89	5.06	5.39	5.97	7.77	8.11	8.29	8.61	9.19