

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: P1058501

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058501  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)  
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-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

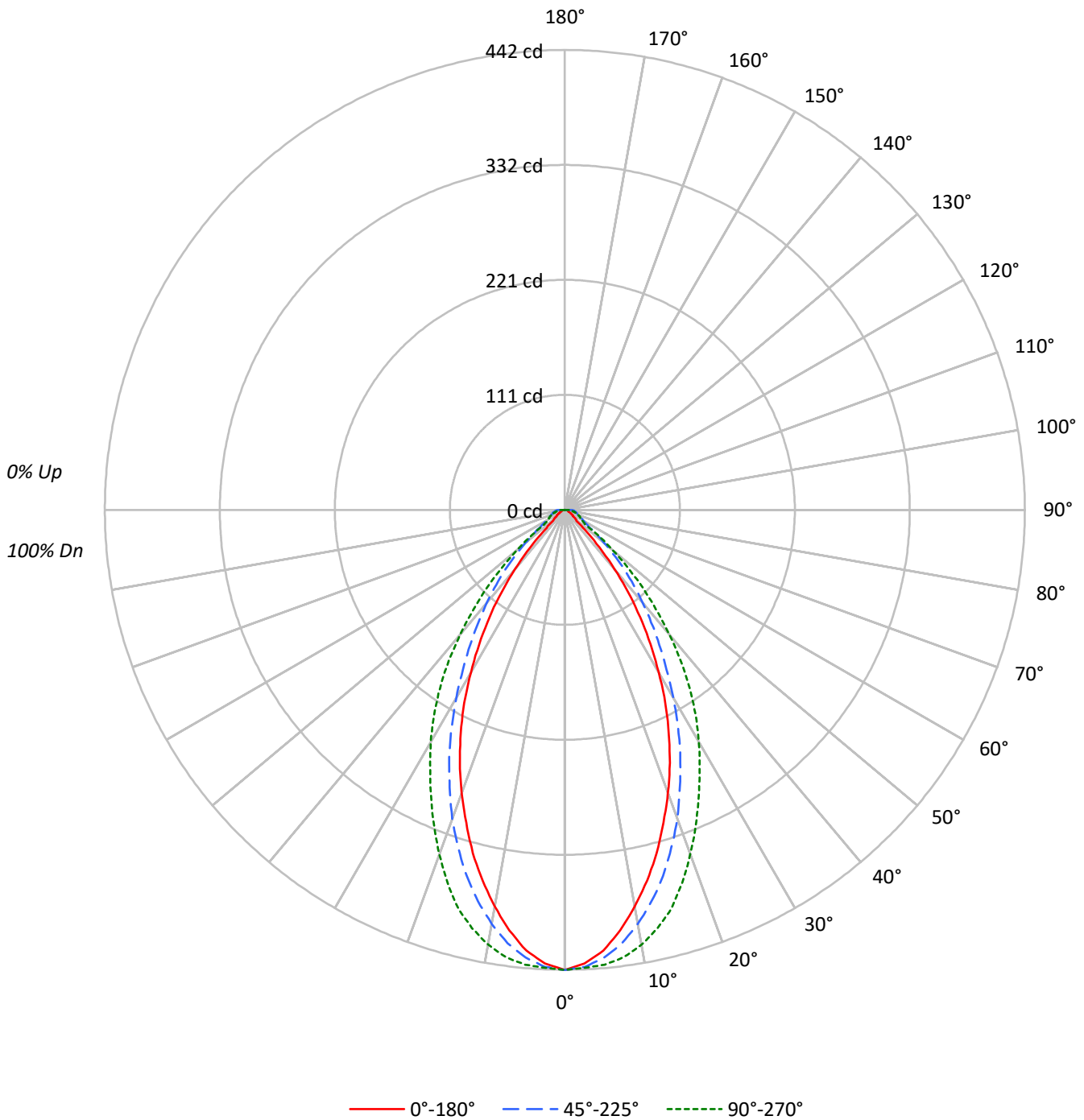
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 476.6 lumens  
Efficiency: N/A  
Efficacy: 20.3 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9  
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	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	77	82	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	68	64	71	67	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57				
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				

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

	0°	45°	90°
0°	8160	8160	8160
5°	7876	8002	8128
10°	7253	7572	7952
15°	6522	6959	7573
20°	5689	6205	6920
25°	4811	5347	6191
30°	3844	4440	5487
35°	2843	3568	4713
40°	1795	2797	3755
45°	707	2101	2764
50°	365	1410	1702
55°	299	927	762
60°	218	749	686
65°	183	703	703
70°	183	734	685
75°	242	848	727
80°	361	1084	808
85°	529	1800	1080

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 3596 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.4	8.5
10°-20°	102.2	21.4
20°-30°	121.4	25.5
30°-40°	101.0	21.2
40°-50°	56.4	11.8
50°-60°	22.8	4.8
60°-70°	14.6	3.1
70°-80°	11.0	2.3
80°-90°	7.0	1.5
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°	264.0	55.4
0°-40°	365.0	76.6
0°-60°	444.2	93.2
0°-90°	476.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	476.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	442	442	442	442	442	
5°	425	433	432	435	439	39
15°	341	352	364	383	396	95
25°	236	246	263	283	304	108
35°	126	138	158	185	209	78
45°	27	46	80	94	106	25
55°	9	20	29	28	24	8
65°	4	17	16	15	16	4
75°	3	12	12	11	10	4
85°	2	8	8	8	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	442.2	442.2	442.2	442.2	442.2
2.5°	436.3	443.0	439.6	439.6	440.5
5°	425.2	432.9	432.0	435.4	438.8
7.5°	407.5	415.9	420.2	427.8	433.7
10°	387.1	396.4	404.1	415.9	424.4
12.5°	365.1	374.4	385.4	400.7	411.7
15°	341.4	351.5	364.3	382.9	396.4
17.5°	315.1	326.1	340.5	360.9	375.3
20°	289.7	300.7	316.0	336.3	352.4
22.5°	263.4	272.8	288.9	309.2	328.7
25°	236.3	245.7	262.6	282.9	304.1
27.5°	209.2	218.6	235.5	256.7	280.4
30°	180.4	190.6	208.4	232.1	257.5
32.5°	153.3	163.5	182.1	208.4	233.8
35°	126.2	138.1	158.4	184.7	209.2
37.5°	100.0	113.5	136.4	160.9	183.0
40°	74.5	88.9	116.1	137.2	155.9
42.5°	49.1	66.1	97.4	115.2	129.6
45°	27.1	45.7	80.5	94.0	105.9
47.5°	15.2	29.6	63.5	74.5	81.3
50°	12.7	22.0	49.1	56.8	59.3
52.5°	10.2	20.3	37.3	41.5	39.8
55°	9.3	19.5	28.8	28.0	23.7
57.5°	7.6	19.5	22.9	20.3	20.3
60°	5.9	18.6	20.3	17.8	18.6
62.5°	5.1	17.8	18.6	16.9	16.9
65°	4.2	16.9	16.1	15.2	16.1
67.5°	3.4	15.2	15.2	14.4	14.4
70°	3.4	14.4	13.6	12.7	12.7
72.5°	3.4	12.7	12.7	11.9	11.9
75°	3.4	11.9	11.9	11.0	10.2
77.5°	3.4	10.2	11.0	10.2	9.3
80°	3.4	9.3	10.2	9.3	7.6
82.5°	3.4	8.5	9.3	8.5	6.8
85°	2.5	7.6	8.5	7.6	5.1
87.5°	2.5	7.6	8.5	6.8	4.2
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	5.66	6.88	6.03	7.19	7.51	6.72	7.94	7.09	8.26	8.57
	3H	6.99	8.07	7.37	8.41	8.77	8.76	9.84	9.14	10.17	10.54
	4H	7.57	8.58	7.97	8.93	9.32	9.72	10.73	10.12	11.08	11.47
	6H	8.14	9.07	8.55	9.44	9.83	10.66	11.59	11.08	11.96	12.36
	8H	8.46	9.34	8.90	9.73	10.14	11.11	11.99	11.55	12.38	12.79
	12H	8.77	9.61	9.20	9.99	10.42	11.54	12.38	11.97	12.76	13.19
4H	2H	6.62	7.63	7.03	7.99	8.37	7.40	8.41	7.81	8.77	9.15
	3H	8.65	9.48	9.06	9.89	10.29	9.69	10.52	10.10	10.93	11.33
	4H	9.74	10.48	10.17	10.91	11.35	10.84	11.59	11.28	12.01	12.46
	6H	10.61	11.26	11.07	11.70	12.17	12.01	12.66	12.48	13.11	13.57
	8H	11.02	11.63	11.49	12.08	12.55	12.57	13.18	13.05	13.63	14.10
	12H	11.40	11.93	11.88	12.42	12.89	13.12	13.66	13.61	14.14	14.61
8H	4H	10.51	11.11	10.98	11.56	12.03	11.40	12.00	11.87	12.45	12.92
	6H	11.85	12.34	12.35	12.84	13.32	12.85	13.34	13.35	13.84	14.32
	8H	12.57	13.01	13.09	13.53	14.02	13.61	14.06	14.14	14.58	15.07
	12H	13.25	13.65	13.77	14.14	14.71	14.40	14.80	14.92	15.29	15.86
12H	4H	10.66	11.20	11.15	11.68	12.16	11.50	12.04	11.99	12.52	13.00
	6H	12.17	12.62	12.69	13.13	13.63	13.07	13.52	13.60	14.04	14.53
	8H	13.07	13.47	13.59	13.96	14.53	13.98	14.38	14.50	14.87	15.45