

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: P1059792

Luminaire Tested: S123RDR-H775D935-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059792  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-H775D935-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

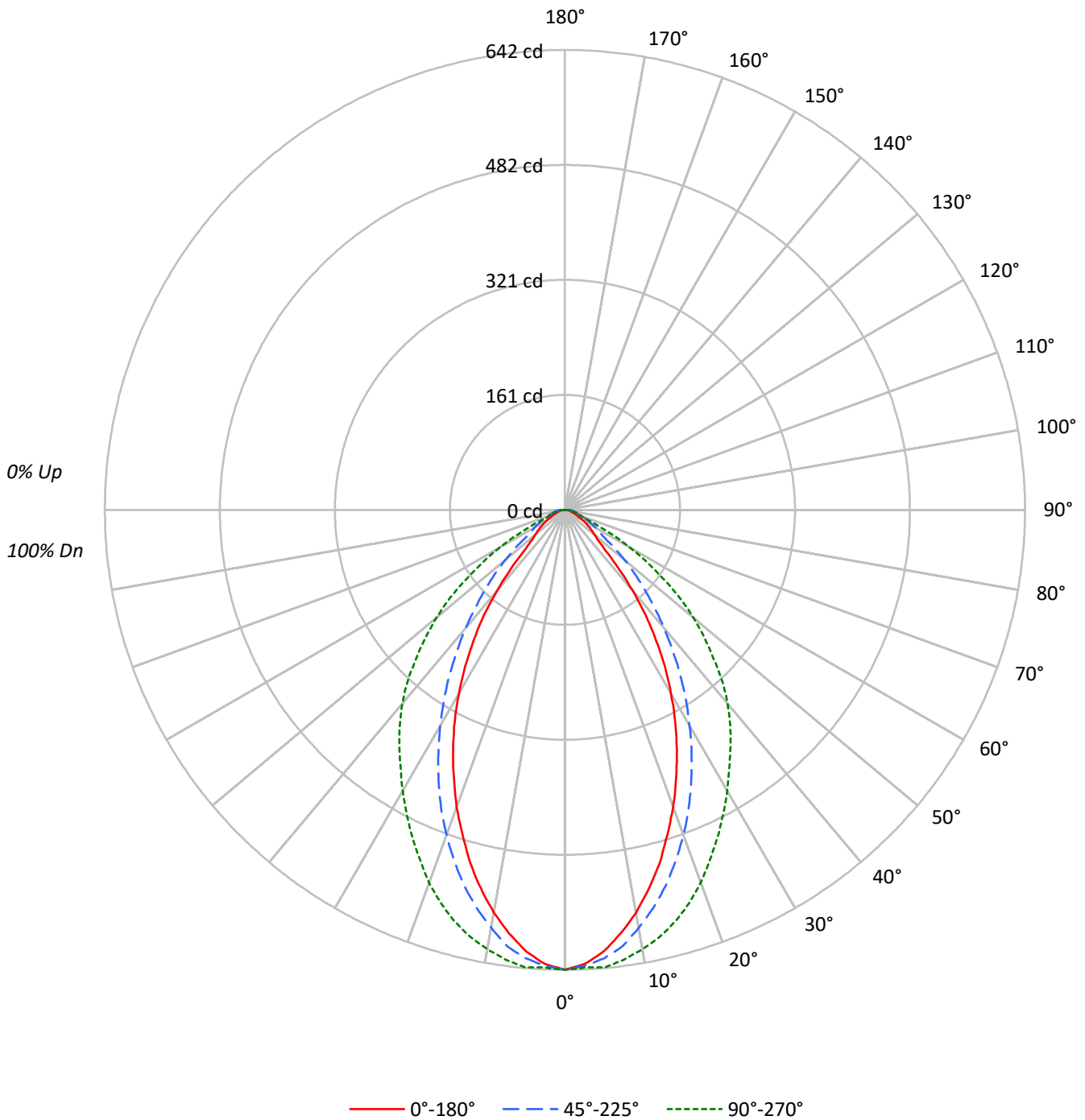
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 861.7 lumens  
Efficiency: N/A  
Efficacy: 36.7 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98  
Luminous Opening: Rectangular (W 0.23' 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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				

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

	0°	45°	90°
0°	7537	7537	7537
5°	7293	7406	7557
10°	6807	7064	7425
15°	6204	6601	7231
20°	5520	6038	6925
25°	4783	5403	6529
30°	4011	4713	6141
35°	3178	4012	5773
40°	2249	3300	5414
45°	1324	2609	4872
50°	990	1980	4267
55°	833	1339	3427
60°	674	1141	2435
65°	531	975	1284
70°	467	848	793
75°	436	794	758
80°	433	866	757
85°	539	1293	970

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4872 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.1	6.9
10°-20°	153.5	17.8
20°-30°	195.5	22.7
30°-40°	183.9	21.3
40°-50°	132.5	15.4
50°-60°	76.5	8.9
60°-70°	35.0	4.1
70°-80°	17.5	2.0
80°-90°	8.3	1.0
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°	408.1	47.4
0°-40°	592.0	68.7
0°-60°	801.0	93.0
0°-90°	861.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	861.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	642	642	642	642	642	
5°	619	629	628	635	641	58
15°	510	529	543	573	595	142
25°	369	388	417	463	504	169
35°	222	241	280	344	403	137
45°	80	100	157	236	293	67
55°	41	42	65	124	167	36
65°	19	27	35	39	46	20
75°	10	18	18	17	17	10
85°	4	9	10	9	7	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	641.9	641.9	641.9	641.9	641.9
2.5°	634.7	642.7	637.1	637.9	639.5
5°	618.7	629.1	628.3	634.7	641.1
7.5°	596.4	608.4	614.8	624.3	633.1
10°	570.9	584.5	592.4	610.0	622.7
12.5°	541.4	558.9	569.3	592.4	610.8
15°	510.3	528.6	543.0	573.3	594.8
17.5°	475.2	495.2	513.5	549.4	575.7
20°	441.7	460.9	483.2	522.3	554.2
22.5°	405.1	425.8	451.3	492.8	528.6
25°	369.2	388.3	417.0	463.3	503.9
27.5°	333.3	352.4	382.7	433.8	478.4
30°	295.8	315.7	347.6	404.3	452.9
32.5°	259.1	278.3	314.2	375.6	426.6
35°	221.7	240.8	279.9	344.5	402.7
37.5°	185.0	204.9	246.4	318.9	378.7
40°	146.7	168.2	215.3	292.6	353.2
42.5°	110.8	134.0	184.2	265.5	325.3
45°	79.7	99.7	157.1	236.0	293.4
47.5°	62.2	72.6	132.4	205.7	263.9
50°	54.2	55.8	108.4	177.8	233.6
52.5°	47.0	48.6	85.3	151.5	201.7
55°	40.7	42.3	65.4	124.4	167.4
57.5°	34.3	36.7	54.2	98.9	134.8
60°	28.7	31.9	48.6	75.7	103.7
62.5°	23.1	28.7	41.5	55.8	74.2
65°	19.1	27.1	35.1	39.1	46.2
67.5°	15.9	24.7	29.5	27.9	27.1
70°	13.6	22.3	24.7	22.3	23.1
72.5°	11.2	20.7	20.7	19.1	19.1
75°	9.6	18.3	17.5	16.7	16.7
77.5°	8.0	15.9	15.1	14.4	13.6
80°	6.4	12.8	12.8	12.0	11.2
82.5°	5.6	10.4	10.4	10.4	8.8
85°	4.0	8.8	9.6	8.8	7.2
87.5°	3.2	8.0	8.0	7.2	4.8
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	6.99	8.31	7.36	8.62	8.94	14.35	15.67	14.72	15.98	16.30
	3H	8.38	9.55	8.76	9.88	10.24	14.58	15.75	14.96	16.08	16.45
	4H	8.93	10.02	9.33	10.37	10.76	14.70	15.79	15.10	16.14	16.52
	6H	9.37	10.37	9.78	10.74	11.13	14.81	15.81	15.23	16.18	16.58
	8H	9.54	10.49	9.97	10.88	11.29	14.86	15.81	15.29	16.20	16.61
	12H	9.70	10.61	10.13	10.99	11.42	14.92	15.83	15.36	16.22	16.65
4H	2H	8.09	9.18	8.49	9.53	9.92	14.31	15.40	14.71	15.75	16.14
	3H	9.75	10.64	10.16	11.05	11.45	14.67	15.56	15.08	15.97	16.37
	4H	10.56	11.36	10.99	11.78	12.22	14.87	15.67	15.30	16.08	16.53
	6H	11.20	11.89	11.66	12.33	12.80	15.10	15.79	15.56	16.23	16.70
	8H	11.43	12.08	11.90	12.53	13.00	15.20	15.85	15.67	16.29	16.76
	12H	11.65	12.22	12.13	12.70	13.18	15.33	15.90	15.82	16.38	16.86
8H	4H	11.00	11.65	11.47	12.09	12.56	14.90	15.55	15.37	16.00	16.47
	6H	11.91	12.44	12.42	12.94	13.42	15.23	15.76	15.74	16.26	16.74
	8H	12.34	12.81	12.86	13.33	13.82	15.42	15.90	15.95	16.42	16.91
	12H	12.76	13.18	13.27	13.67	14.24	15.68	16.10	16.19	16.59	17.16
12H	4H	11.06	11.63	11.54	12.11	12.59	14.89	15.46	15.38	15.95	16.42
	6H	12.05	12.53	12.57	13.04	13.53	15.25	15.73	15.77	16.24	16.73
	8H	12.59	13.01	13.11	13.51	14.08	15.51	15.93	16.02	16.43	17.00