

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: P1059470

Luminaire Tested: S123RDR-H1000D935-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059470  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-H1000D935-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

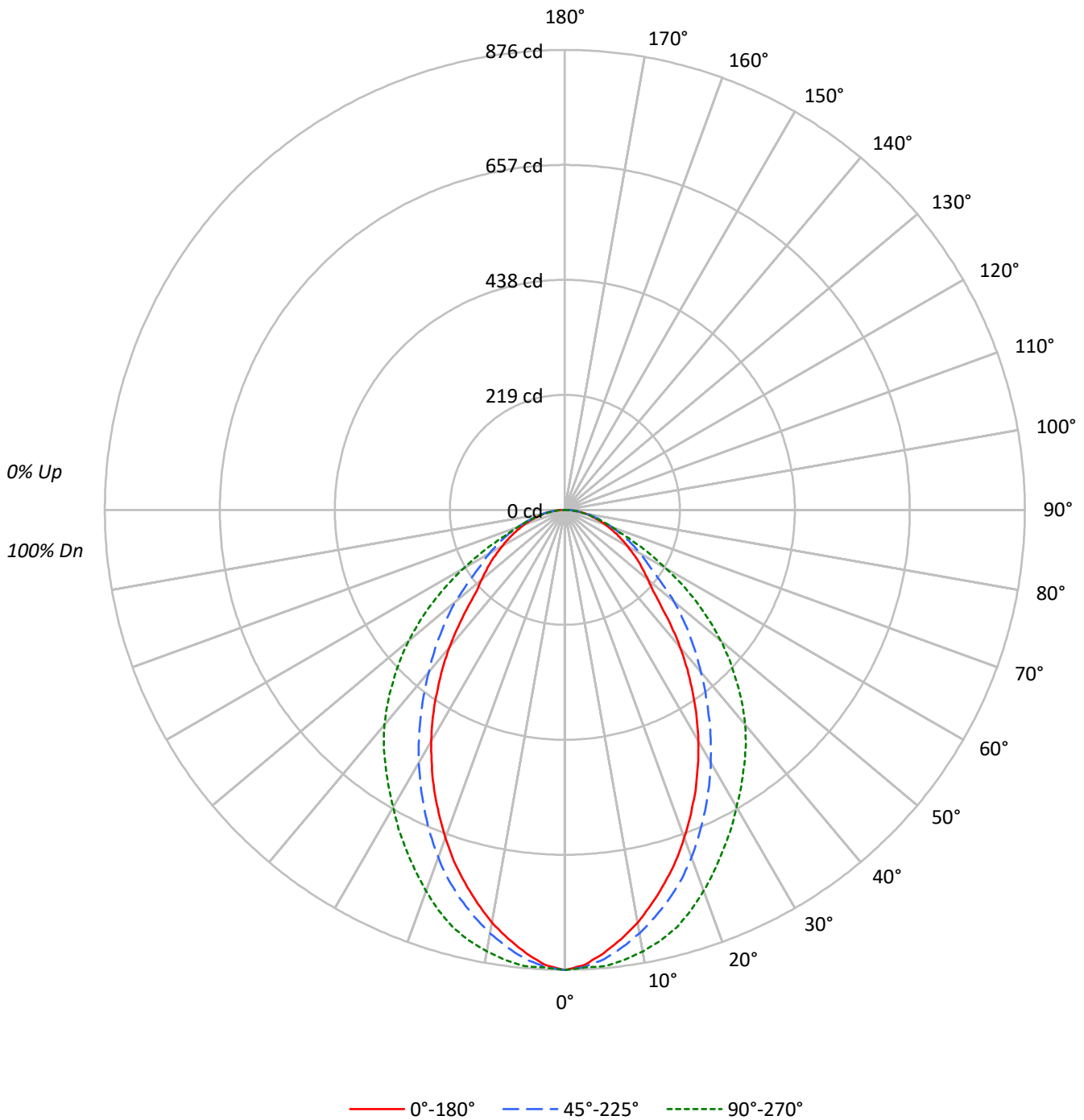
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1583.3 lumens  
Efficiency: N/A  
Efficacy: 50.7 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				

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

	0°	45°	90°
0°	10292	10292	10292
5°	9992	10125	10283
10°	9520	9765	10182
15°	8944	9331	10006
20°	8307	8808	9656
25°	7629	8187	9253
30°	6896	7537	8861
35°	6084	6849	8529
40°	5229	6174	8190
45°	4299	5563	7679
50°	3772	4956	7077
55°	3493	4228	6269
60°	3210	3884	5188
65°	2998	3568	4082
70°	2822	3244	3244
75°	2659	2985	2799
80°	2502	2712	2360
85°	2358	2627	1805

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7679 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.1	5.1
10°-20°	217.3	13.7
20°-30°	294.6	18.6
30°-40°	308.0	19.5
40°-50°	267.1	16.9
50°-60°	198.7	12.6
60°-70°	127.5	8.1
70°-80°	68.4	4.3
80°-90°	20.7	1.3
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°	592.9	37.4
0°-40°	900.9	56.9
0°-60°	1366.7	86.3
0°-90°	1583.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1583.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	876	876	876	876	876	
5°	848	862	859	865	872	79
15°	736	753	768	798	823	206
25°	589	607	632	674	714	270
35°	424	445	478	538	595	265
45°	259	278	335	407	462	204
55°	171	175	206	265	306	153
65°	108	117	128	137	147	107
75°	59	68	66	63	62	62
85°	18	22	20	16	13	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	876.5	876.5	876.5	876.5	876.5
2.5°	867.3	879.6	871.4	871.4	872.4
5°	847.7	862.1	859.0	865.2	872.4
7.5°	824.1	839.5	840.5	854.9	865.2
10°	798.4	813.8	819.0	839.5	853.9
12.5°	767.6	785.1	794.3	820.0	840.5
15°	735.7	753.2	767.6	798.4	823.1
17.5°	701.8	719.3	737.8	772.7	799.4
20°	664.8	683.3	704.9	739.8	772.7
22.5°	626.8	646.3	668.9	707.0	744.0
25°	588.8	607.3	631.9	674.1	714.2
27.5°	548.7	568.2	593.9	640.2	685.4
30°	508.6	528.2	555.9	605.2	653.5
32.5°	467.5	487.1	516.9	572.3	624.8
35°	424.4	444.9	477.8	538.4	595.0
37.5°	383.3	402.8	439.8	506.6	566.2
40°	341.1	361.7	402.8	474.7	534.3
42.5°	300.0	320.6	368.9	440.8	499.4
45°	258.9	278.5	335.0	406.9	462.4
47.5°	227.1	241.5	303.1	370.9	426.4
50°	206.5	211.7	271.3	336.0	387.4
52.5°	188.0	192.2	236.3	301.1	347.3
55°	170.6	174.7	206.5	265.1	306.2
57.5°	153.1	158.2	183.9	228.1	265.1
60°	136.7	142.8	165.4	195.2	220.9
62.5°	122.3	129.5	146.9	165.4	182.9
65°	107.9	117.1	128.4	136.7	146.9
67.5°	94.5	104.8	111.0	113.0	114.1
70°	82.2	92.5	94.5	94.5	94.5
72.5°	69.9	81.2	79.1	78.1	77.1
75°	58.6	67.8	65.8	62.7	61.7
77.5°	47.3	55.5	52.4	50.4	47.3
80°	37.0	43.2	40.1	38.0	34.9
82.5°	27.7	31.9	28.8	26.7	23.6
85°	17.5	21.6	19.5	16.4	13.4
87.5°	9.2	12.3	10.3	9.2	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	14.88	16.37	15.25	16.68	16.99	17.64	19.12	18.01	19.44	19.75
	3H	16.60	17.92	16.97	18.25	18.61	18.66	19.99	19.04	20.32	20.68
	4H	17.26	18.50	17.66	18.85	19.23	19.03	20.27	19.43	20.62	21.00
	6H	17.76	18.91	18.17	19.27	19.67	19.28	20.43	19.70	20.80	21.19
	8H	17.94	19.03	18.36	19.42	19.82	19.35	20.45	19.78	20.84	21.24
	12H	18.06	19.11	18.49	19.49	19.92	19.39	20.44	19.82	20.82	21.25
4H	2H	15.66	16.91	16.06	17.25	17.63	17.91	19.16	18.31	19.51	19.89
	3H	17.59	18.62	18.00	19.02	19.42	19.17	20.20	19.58	20.60	21.00
	4H	18.40	19.33	18.83	19.74	20.18	19.65	20.58	20.09	21.00	21.44
	6H	19.04	19.85	19.50	20.29	20.75	20.04	20.84	20.49	21.29	21.75
	8H	19.27	20.02	19.73	20.47	20.93	20.15	20.90	20.61	21.35	21.81
	12H	19.44	20.11	19.92	20.59	21.06	20.22	20.89	20.70	21.37	21.84
8H	4H	18.72	19.47	19.18	19.92	20.38	19.85	20.60	20.31	21.05	21.51
	6H	19.51	20.13	20.01	20.63	21.10	20.33	20.96	20.83	21.45	21.93
	8H	19.84	20.40	20.35	20.91	21.40	20.51	21.07	21.02	21.58	22.07
	12H	20.12	20.61	20.63	21.10	21.67	20.64	21.14	21.15	21.63	22.20
12H	4H	18.74	19.41	19.22	19.89	20.37	19.86	20.53	20.34	21.01	21.49
	6H	19.56	20.13	20.08	20.64	21.12	20.37	20.93	20.89	21.44	21.93
	8H	19.96	20.45	20.47	20.95	21.51	20.60	21.10	21.11	21.59	22.15