

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: P1059465

Luminaire Tested: S123RDR-H1000D935-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059465
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D935-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

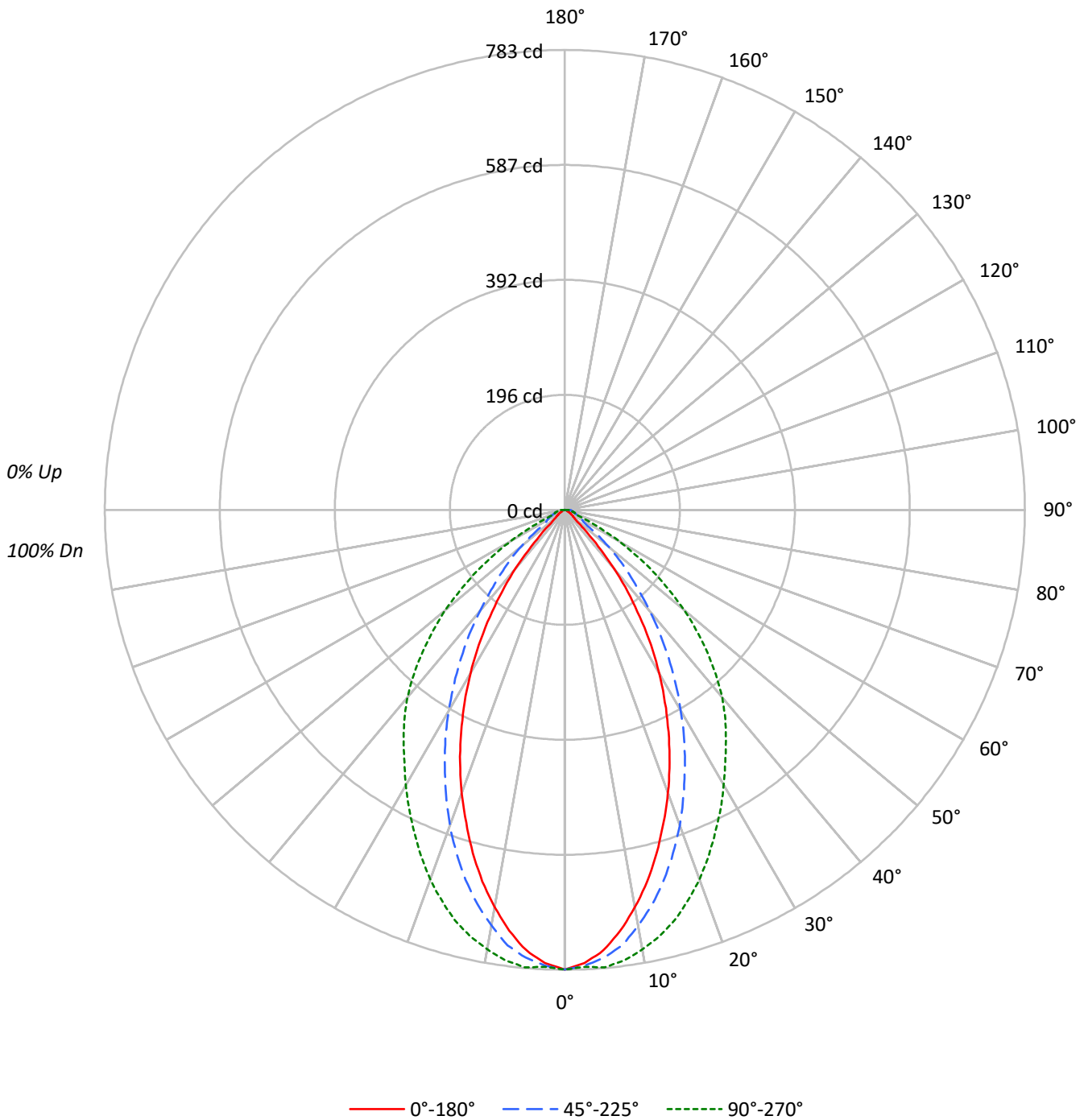
Lumens per Lamp: N/A
Luminaire Lumens: 939.7 lumens
Efficiency: N/A
Efficacy: 30.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47				
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9191	9191	9191
5°	8875	9020	9214
10°	8193	8572	9063
15°	7352	7927	8790
20°	6413	7146	8367
25°	5411	6263	7849
30°	4351	5356	7335
35°	3185	4408	6856
40°	1987	3437	6386
45°	752	2562	5688
50°	356	1767	4848
55°	274	968	3748
60°	193	822	2464
65°	142	714	1028
70°	141	669	669
75°	186	699	699
80°	277	832	764
85°	552	1388	1105

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5688 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.8	7.6
10°-20°	184.2	19.6
20°-30°	228.1	24.3
30°-40°	204.5	21.8
40°-50°	134.0	14.3
50°-60°	67.1	7.1
60°-70°	26.1	2.8
70°-80°	14.7	1.6
80°-90°	9.1	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°	484.1	51.5
0°-40°	688.6	73.3
0°-60°	889.7	94.7
0°-90°	939.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	939.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	753	765	765	774	782	70
15°	605	630	652	695	723	168
25°	418	443	483	552	606	191
35°	222	252	308	400	478	138
45°	45	73	154	264	342	43
55°	13	16	47	130	183	12
65°	5	15	26	34	37	5
75°	4	15	15	15	15	4
85°	4	10	10	10	8	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	782.7	782.7	782.7	782.7	782.7
2.5°	772.4	783.7	776.5	777.6	778.6
5°	752.9	765.2	765.2	773.5	781.7
7.5°	723.1	737.5	747.7	762.1	773.5
10°	687.1	704.5	718.9	744.7	760.1
12.5°	648.0	669.6	688.1	722.0	743.6
15°	604.8	629.5	652.1	695.3	723.1
17.5°	558.5	583.2	613.0	663.4	697.3
20°	513.2	537.9	571.9	628.4	669.6
22.5°	465.9	491.6	527.6	590.4	638.7
25°	417.6	443.3	483.4	552.3	605.8
27.5°	369.2	395.0	440.2	515.3	573.9
30°	320.9	346.6	395.0	475.2	541.0
32.5°	272.6	300.3	350.7	438.2	508.1
35°	222.2	252.0	307.5	400.1	478.3
37.5°	175.9	203.6	266.4	367.2	448.4
40°	129.6	159.4	224.2	335.3	416.6
42.5°	84.3	116.2	186.2	300.3	380.6
45°	45.3	73.0	154.3	264.3	342.5
47.5°	24.7	40.1	124.5	226.3	303.4
50°	19.5	22.6	96.7	193.4	265.4
52.5°	16.5	18.5	68.9	162.5	223.2
55°	13.4	16.5	47.3	129.6	183.1
57.5°	11.3	14.4	37.0	100.8	143.0
60°	8.2	12.3	35.0	74.1	104.9
62.5°	6.2	13.4	30.9	51.4	68.9
65°	5.1	15.4	25.7	33.9	37.0
67.5°	4.1	16.5	22.6	21.6	21.6
70°	4.1	15.4	19.5	18.5	19.5
72.5°	4.1	16.5	17.5	16.5	17.5
75°	4.1	15.4	15.4	15.4	15.4
77.5°	4.1	14.4	14.4	13.4	13.4
80°	4.1	12.3	12.3	12.3	11.3
82.5°	4.1	11.3	11.3	11.3	9.3
85°	4.1	10.3	10.3	10.3	8.2
87.5°	3.1	9.3	10.3	9.3	6.2
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	0.06	1.32	0.43	1.63	1.94	14.31	15.57	14.68	15.88	16.20
	3H	2.39	3.50	2.77	3.84	4.20	14.39	15.50	14.77	15.83	16.20
	4H	3.50	4.53	3.90	4.88	5.27	14.47	15.50	14.87	15.85	16.24
	6H	4.48	5.43	4.90	5.80	6.20	14.57	15.52	14.99	15.89	16.29
	8H	4.96	5.86	5.39	6.25	6.66	14.63	15.53	15.06	15.92	16.33
	12H	5.52	6.38	5.95	6.76	7.19	14.71	15.57	15.15	15.95	16.38
4H	2H	3.31	4.34	3.71	4.70	5.08	14.17	15.20	14.57	15.55	15.94
	3H	5.63	6.47	6.04	6.88	7.28	14.34	15.19	14.76	15.59	16.00
	4H	7.00	7.75	7.43	8.17	8.62	14.49	15.25	14.93	15.67	16.11
	6H	8.08	8.73	8.55	9.18	9.65	14.72	15.37	15.18	15.82	16.29
	8H	8.54	9.15	9.01	9.59	10.07	14.84	15.45	15.31	15.90	16.37
	12H	9.03	9.57	9.52	10.05	10.53	15.02	15.55	15.50	16.04	16.51
8H	4H	7.97	8.58	8.44	9.03	9.50	14.49	15.10	14.96	15.55	16.02
	6H	9.49	9.99	9.99	10.49	10.97	14.83	15.33	15.33	15.82	16.31
	8H	10.26	10.71	10.78	11.23	11.72	15.06	15.51	15.58	16.03	16.52
	12H	11.07	11.47	11.58	11.96	12.53	15.39	15.79	15.91	16.29	16.86
12H	4H	8.15	8.69	8.63	9.17	9.64	14.47	15.01	14.96	15.50	15.97
	6H	9.80	10.25	10.33	10.77	11.26	14.85	15.30	15.37	15.81	16.30
	8H	10.76	11.16	11.27	11.65	12.22	15.16	15.55	15.67	16.05	16.62