

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: P1059701

Luminaire Tested: S123RDR-H560D930-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059701
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H560D930-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

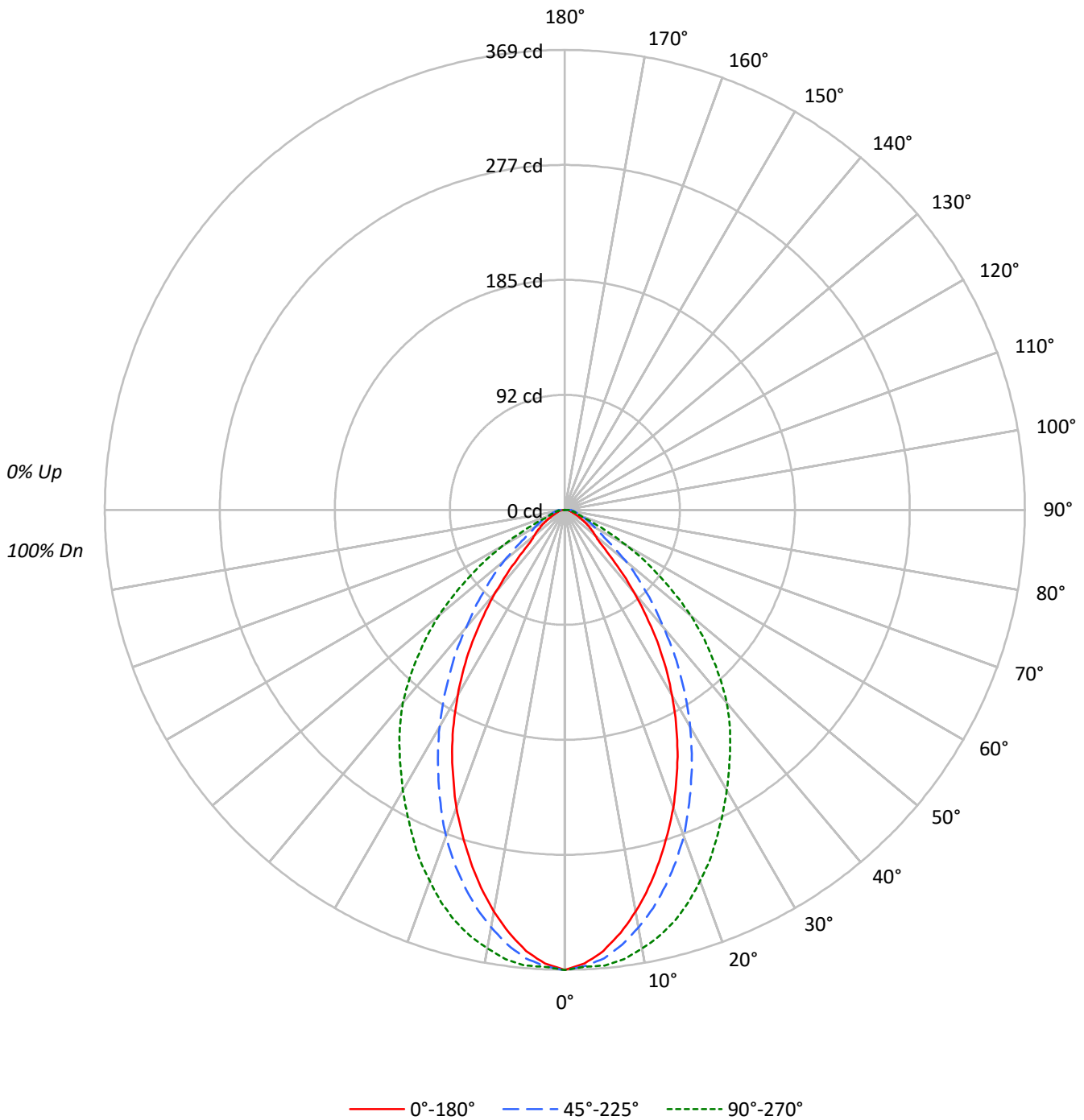
Lumens per Lamp: N/A
Luminaire Lumens: 494.5 lumens
Efficiency: N/A
Efficacy: 28.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	101	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	91	81	74	69	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	61	69	64	60	68	63	59	58				
6	79	68	61	56	78	67	60	55	66	60	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	56	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	50	43	39	49	43	39	48	43	39	37				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4335	4335	4335
5°	4187	4256	4326
10°	3901	4055	4260
15°	3551	3794	4148
20°	3179	3483	3960
25°	2773	3107	3743
30°	2331	2725	3523
35°	1855	2311	3314
40°	1321	1884	3098
45°	787	1513	2775
50°	581	1153	2402
55°	485	784	1908
60°	392	646	1341
65°	314	553	720
70°	257	481	443
75°	245	463	417
80°	257	507	399
85°	364	728	512

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2775 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.9	6.9
10°-20°	88.1	17.8
20°-30°	112.4	22.7
30°-40°	105.7	21.4
40°-50°	76.0	15.4
50°-60°	43.6	8.8
60°-70°	19.9	4.0
70°-80°	10.0	2.0
80°-90°	4.9	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°	234.4	47.4
0°-40°	340.1	68.8
0°-60°	459.7	93.0
0°-90°	494.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	494.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	369	369	369	369	369	
5°	355	362	361	364	367	33
15°	292	302	312	329	341	82
25°	214	224	240	266	289	98
35°	129	138	161	198	231	80
45°	47	58	91	134	167	40
55°	24	24	38	71	93	21
65°	11	16	20	22	26	11
75°	5	11	10	9	9	6
85°	3	5	5	5	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	369.2	369.2	369.2	369.2	369.2
2.5°	364.4	369.7	366.5	366.5	367.0
5°	355.2	362.2	361.1	363.8	367.0
7.5°	342.3	349.8	352.0	358.4	363.8
10°	327.2	335.8	340.1	350.3	357.3
12.5°	310.5	320.2	327.2	340.1	350.3
15°	292.1	302.4	312.1	328.8	341.2
17.5°	273.3	283.5	295.9	315.3	329.9
20°	254.4	264.6	278.7	299.1	316.9
22.5°	233.9	244.2	259.3	282.4	304.0
25°	214.0	223.7	239.8	265.7	288.9
27.5°	193.0	202.7	220.4	248.5	274.3
30°	171.9	181.6	201.0	231.2	259.8
32.5°	150.9	160.1	181.1	214.5	245.2
35°	129.4	138.5	161.2	197.8	231.2
37.5°	107.3	116.4	142.8	182.7	217.2
40°	86.2	96.5	122.9	167.6	202.1
42.5°	65.8	76.5	106.7	151.5	184.9
45°	47.4	57.7	91.1	134.2	167.1
47.5°	36.1	41.5	77.1	117.0	149.8
50°	31.8	32.3	63.1	101.3	131.5
52.5°	27.5	28.0	49.0	86.2	112.1
55°	23.7	24.3	38.3	70.6	93.2
57.5°	19.9	21.0	31.3	56.1	74.9
60°	16.7	18.9	27.5	42.6	57.1
62.5°	13.5	17.2	23.7	31.3	41.0
65°	11.3	15.6	19.9	22.1	25.9
67.5°	9.2	14.6	16.7	15.6	15.6
70°	7.5	12.9	14.0	12.9	12.9
72.5°	6.5	12.4	11.9	10.8	10.8
75°	5.4	10.8	10.2	9.2	9.2
77.5°	4.9	9.2	8.6	8.1	7.5
80°	3.8	7.5	7.5	7.0	5.9
82.5°	3.2	6.5	6.5	5.9	4.9
85°	2.7	5.4	5.4	4.9	3.8
87.5°	2.2	4.9	4.9	4.3	2.7
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	5.07	6.39	5.44	6.70	7.02	12.31	13.63	12.67	13.94	14.25
	3H	6.48	7.65	6.86	7.98	8.34	12.54	13.71	12.92	14.04	14.41
	4H	7.04	8.13	7.44	8.48	8.87	12.65	13.74	13.05	14.09	14.47
	6H	7.51	8.51	7.92	8.88	9.27	12.75	13.76	13.17	14.13	14.52
	8H	7.69	8.64	8.12	9.03	9.44	12.80	13.75	13.23	14.14	14.55
	12H	7.88	8.79	8.31	9.17	9.60	12.86	13.76	13.29	14.15	14.58
4H	2H	6.15	7.24	6.55	7.59	7.97	12.27	13.36	12.67	13.71	14.09
	3H	7.84	8.73	8.25	9.14	9.54	12.63	13.53	13.05	13.93	14.33
	4H	8.68	9.48	9.11	9.89	10.34	12.82	13.62	13.25	14.04	14.48
	6H	9.34	10.03	9.80	10.48	10.94	13.04	13.73	13.50	14.18	14.64
	8H	9.59	10.24	10.06	10.69	11.16	13.14	13.79	13.61	14.23	14.71
	12H	9.85	10.42	10.33	10.90	11.38	13.26	13.83	13.75	14.31	14.79
8H	4H	9.11	9.76	9.58	10.20	10.67	12.86	13.51	13.33	13.96	14.43
	6H	10.06	10.59	10.57	11.09	11.57	13.19	13.72	13.70	14.22	14.70
	8H	10.53	11.01	11.05	11.52	12.01	13.38	13.86	13.91	14.38	14.87
	12H	11.01	11.43	11.52	11.93	12.50	13.62	14.04	14.13	14.54	15.11
12H	4H	9.17	9.74	9.66	10.22	10.70	12.86	13.43	13.34	13.91	14.38
	6H	10.21	10.69	10.73	11.20	11.70	13.22	13.70	13.74	14.21	14.70
	8H	10.81	11.23	11.32	11.72	12.29	13.48	13.90	14.00	14.40	14.97