

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: P1059665

Luminaire Tested: S123RDR-H560D835-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059665
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-H560D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

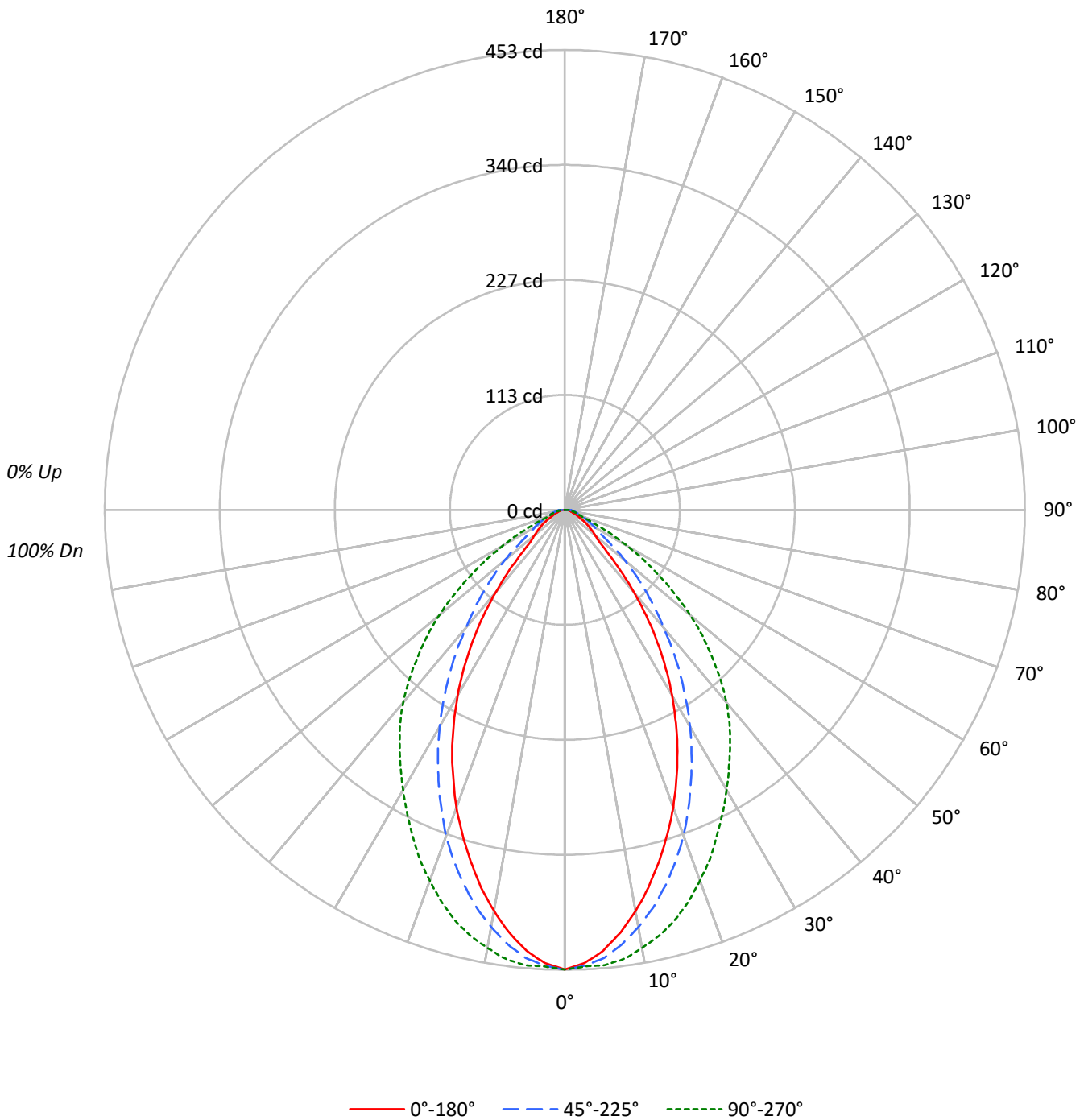
Lumens per Lamp: N/A
Luminaire Lumens: 606.5 lumens
Efficiency: N/A
Efficacy: 34.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58				58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5317	5317	5317
5°	5136	5221	5307
10°	4785	4973	5226
15°	4356	4654	5088
20°	3899	4271	4857
25°	3401	3812	4590
30°	2860	3344	4320
35°	2275	2834	4065
40°	1622	2310	3800
45°	966	1855	3403
50°	712	1412	2947
55°	596	960	2342
60°	481	791	1646
65°	386	681	881
70°	319	591	546
75°	299	572	508
80°	311	629	494
85°	445	889	620

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3403 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.6	6.9
10°-20°	108.1	17.8
20°-30°	137.8	22.7
30°-40°	129.7	21.4
40°-50°	93.2	15.4
50°-60°	53.4	8.8
60°-70°	24.4	4.0
70°-80°	12.3	2.0
80°-90°	6.0	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°	287.5	47.4
0°-40°	417.2	68.8
0°-60°	563.8	93.0
0°-90°	606.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	606.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	453	453	453	453	453	
5°	436	444	443	446	450	40
15°	358	371	383	403	418	100
25°	262	274	294	326	354	120
35°	159	170	198	243	284	98
45°	58	71	112	165	205	49
55°	29	30	47	87	114	26
65°	14	19	24	27	32	14
75°	7	13	13	11	11	7
85°	3	7	7	6	5	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	452.8	452.8	452.8	452.8	452.8
2.5°	446.9	453.5	449.5	449.5	450.2
5°	435.7	444.3	442.9	446.2	450.2
7.5°	419.8	429.0	431.7	439.6	446.2
10°	401.3	411.9	417.1	429.7	438.3
12.5°	380.8	392.7	401.3	417.1	429.7
15°	358.3	370.9	382.8	403.3	418.5
17.5°	335.2	347.7	362.9	386.7	404.6
20°	312.0	324.6	341.8	366.9	388.7
22.5°	286.9	299.5	318.0	346.4	372.9
25°	262.5	274.4	294.2	325.9	354.3
27.5°	236.7	248.6	270.4	304.8	336.5
30°	210.9	222.8	246.6	283.6	318.6
32.5°	185.1	196.3	222.1	263.1	300.8
35°	158.7	169.9	197.7	242.6	283.6
37.5°	131.6	142.8	175.2	224.1	266.4
40°	105.8	118.3	150.7	205.6	247.9
42.5°	80.7	93.9	130.9	185.8	226.8
45°	58.2	70.7	111.7	164.6	204.9
47.5°	44.3	50.9	94.5	143.5	183.8
50°	39.0	39.7	77.3	124.3	161.3
52.5°	33.7	34.4	60.2	105.8	137.5
55°	29.1	29.7	46.9	86.6	114.4
57.5°	24.5	25.8	38.3	68.8	91.9
60°	20.5	23.1	33.7	52.2	70.1
62.5°	16.5	21.2	29.1	38.3	50.2
65°	13.9	19.2	24.5	27.1	31.7
67.5°	11.2	17.8	20.5	19.2	19.2
70°	9.3	15.9	17.2	15.9	15.9
72.5°	7.9	15.2	14.5	13.2	13.2
75°	6.6	13.2	12.6	11.2	11.2
77.5°	5.9	11.2	10.6	9.9	9.3
80°	4.6	9.3	9.3	8.6	7.3
82.5°	4.0	7.9	7.9	7.3	5.9
85°	3.3	6.6	6.6	5.9	4.6
87.5°	2.6	5.9	5.9	5.3	3.3
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	5.80	7.11	6.16	7.43	7.74	13.02	14.33	13.38	14.65	14.96
	3H	7.19	8.36	7.57	8.69	9.06	13.25	14.42	13.63	14.75	15.12
	4H	7.75	8.84	8.15	9.19	9.57	13.36	14.45	13.76	14.80	15.18
	6H	8.21	9.21	8.62	9.58	9.97	13.47	14.47	13.88	14.84	15.23
	8H	8.39	9.34	8.82	9.73	10.14	13.51	14.46	13.94	14.85	15.26
	12H	8.59	9.49	9.02	9.88	10.31	13.56	14.47	14.00	14.85	15.29
4H	2H	6.87	7.96	7.27	8.31	8.69	12.98	14.07	13.38	14.42	14.80
	3H	8.56	9.45	8.97	9.85	10.26	13.35	14.24	13.76	14.64	15.05
	4H	9.39	10.19	9.82	10.60	11.05	13.53	14.33	13.96	14.75	15.19
	6H	10.04	10.73	10.51	11.18	11.65	13.75	14.44	14.22	14.89	15.36
	8H	10.30	10.94	10.77	11.39	11.86	13.85	14.50	14.32	14.95	15.42
	12H	10.55	11.13	11.04	11.61	12.08	13.97	14.54	14.45	15.02	15.50
8H	4H	9.82	10.47	10.29	10.92	11.39	13.57	14.22	14.04	14.67	15.14
	6H	10.77	11.30	11.28	11.80	12.28	13.91	14.44	14.41	14.93	15.42
	8H	11.24	11.71	11.76	12.23	12.72	14.10	14.57	14.62	15.09	15.58
	12H	11.72	12.14	12.23	12.63	13.20	14.33	14.75	14.84	15.24	15.82
12H	4H	9.88	10.45	10.37	10.94	11.41	13.57	14.14	14.05	14.62	15.10
	6H	10.92	11.40	11.44	11.91	12.41	13.93	14.41	14.46	14.93	15.42
	8H	11.51	11.93	12.03	12.43	13.00	14.19	14.62	14.71	15.11	15.68