

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059281

Luminaire Tested: S123RDRP-S560D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059281
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: S123RDRP-S560D850-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

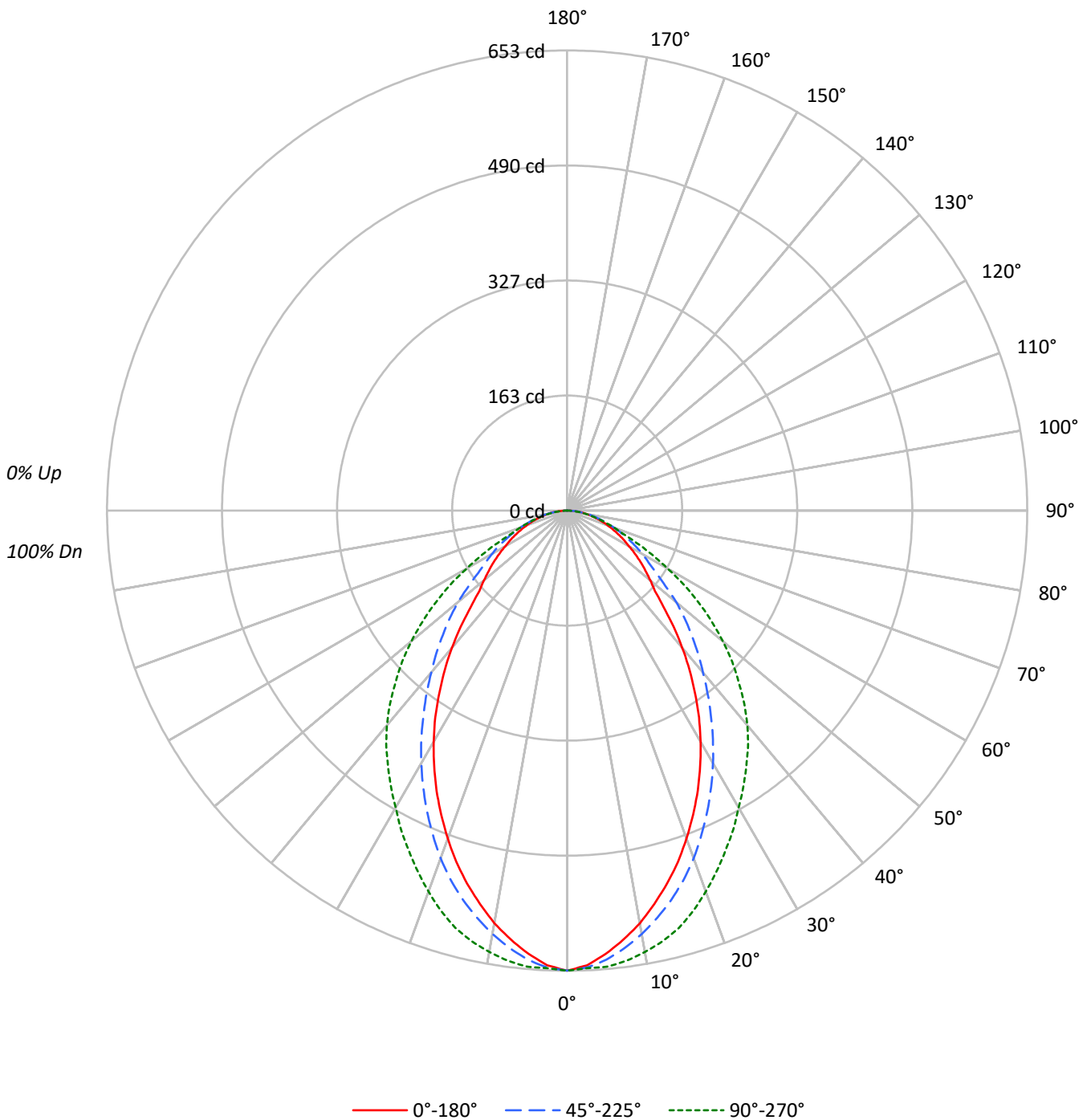
Lumens per Lamp: N/A
Luminaire Lumens: 1179.2 lumens
Efficiency: N/A
Efficacy: 60.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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	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°	7665	7665	7665
5°	7442	7542	7659
10°	7091	7273	7583
15°	6662	6950	7452
20°	6188	6560	7191
25°	5681	6099	6891
30°	5136	5613	6601
35°	4531	5102	6352
40°	3895	4599	6101
45°	3203	4143	5719
50°	2810	3690	5270
55°	2600	3149	4670
60°	2391	2893	3863
65°	2234	2659	3040
70°	2101	2417	2417
75°	1978	2223	2082
80°	1866	2015	1758
85°	1751	1954	1334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5719 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	5.1
10°-20°	161.8	13.7
20°-30°	219.4	18.6
30°-40°	229.4	19.5
40°-50°	199.0	16.9
50°-60°	148.0	12.6
60°-70°	95.0	8.1
70°-80°	50.9	4.3
80°-90°	15.4	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°	441.6	37.4
0°-40°	671.0	56.9
0°-60°	1018.0	86.3
0°-90°	1179.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1179.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	653	653	653	653	653	
5°	631	642	640	644	650	59
15°	548	561	572	595	613	154
25°	438	452	471	502	532	201
35°	316	331	356	401	443	197
45°	193	207	250	303	344	152
55°	127	130	154	198	228	114
65°	80	87	96	102	109	80
75°	44	50	49	47	46	46
85°	13	16	14	12	10	15
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	652.8	652.8	652.8	652.8	652.8
2.5°	645.9	655.1	649.0	649.0	649.8
5°	631.4	642.1	639.8	644.4	649.8
7.5°	613.8	625.3	626.0	636.8	644.4
10°	594.7	606.1	610.0	625.3	636.0
12.5°	571.7	584.7	591.6	610.7	626.0
15°	548.0	561.0	571.7	594.7	613.0
17.5°	522.7	535.7	549.5	575.5	595.4
20°	495.2	508.9	525.0	551.0	575.5
22.5°	466.9	481.4	498.2	526.5	554.1
25°	438.5	452.3	470.7	502.1	531.9
27.5°	408.7	423.2	442.4	476.8	510.5
30°	378.8	393.4	414.0	450.8	486.8
32.5°	348.2	362.8	385.0	426.3	465.3
35°	316.1	331.4	355.9	401.0	443.1
37.5°	285.5	300.0	327.6	377.3	421.7
40°	254.1	269.4	300.0	353.6	398.0
42.5°	223.5	238.8	274.8	328.3	372.0
45°	192.9	207.4	249.5	303.1	344.4
47.5°	169.1	179.9	225.8	276.3	317.6
50°	153.8	157.7	202.0	250.3	288.5
52.5°	140.1	143.1	176.0	224.2	258.7
55°	127.0	130.1	153.8	197.5	228.1
57.5°	114.0	117.9	137.0	169.9	197.5
60°	101.8	106.4	123.2	145.4	164.5
62.5°	91.1	96.4	109.4	123.2	136.2
65°	80.4	87.2	95.7	101.8	109.4
67.5°	70.4	78.1	82.7	84.2	85.0
70°	61.2	68.9	70.4	70.4	70.4
72.5°	52.0	60.5	58.9	58.2	57.4
75°	43.6	50.5	49.0	46.7	45.9
77.5°	35.2	41.3	39.0	37.5	35.2
80°	27.6	32.1	29.8	28.3	26.0
82.5°	20.7	23.7	21.4	19.9	17.6
85°	13.0	16.1	14.5	12.2	9.9
87.5°	6.9	9.2	7.7	6.9	3.8
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	13.86	15.35	14.23	15.66	15.97	16.62	18.10	16.98	18.42	18.73
	3H	15.57	16.90	15.95	17.23	17.59	17.64	18.97	18.02	19.30	19.66
	4H	16.23	17.48	16.63	17.83	18.21	18.01	19.25	18.41	19.60	19.98
	6H	16.73	17.88	17.15	18.25	18.64	18.26	19.41	18.67	19.78	20.17
	8H	16.91	18.01	17.34	18.40	18.80	18.33	19.42	18.76	19.81	20.22
	12H	17.04	18.09	17.47	18.47	18.90	18.37	19.41	18.80	19.79	20.22
4H	2H	14.64	15.89	15.04	16.23	16.61	16.89	18.14	17.29	18.48	18.86
	3H	16.57	17.60	16.98	18.00	18.40	18.14	19.18	18.56	19.58	19.98
	4H	17.37	18.30	17.81	18.72	19.16	18.63	19.56	19.06	19.98	20.42
	6H	18.01	18.82	18.47	19.27	19.73	19.01	19.82	19.47	20.26	20.72
	8H	18.24	19.00	18.71	19.44	19.91	19.12	19.88	19.59	20.32	20.79
	12H	18.42	19.09	18.90	19.57	20.04	19.19	19.87	19.68	20.35	20.82
8H	4H	17.69	18.45	18.16	18.89	19.36	18.82	19.58	19.29	20.02	20.49
	6H	18.49	19.11	18.98	19.60	20.08	19.31	19.93	19.81	20.43	20.90
	8H	18.81	19.37	19.33	19.88	20.37	19.49	20.05	20.00	20.56	21.05
	12H	19.09	19.59	19.60	20.08	20.64	19.62	20.11	20.13	20.61	21.17
12H	4H	17.72	18.39	18.20	18.87	19.34	18.84	19.51	19.32	19.99	20.46
	6H	18.54	19.10	19.05	19.61	20.10	19.35	19.91	19.86	20.42	20.91
	8H	18.93	19.43	19.44	19.92	20.49	19.58	20.07	20.09	20.56	21.13