

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: P1059270

Luminaire Tested: S123RDR-S560D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059270
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D840-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

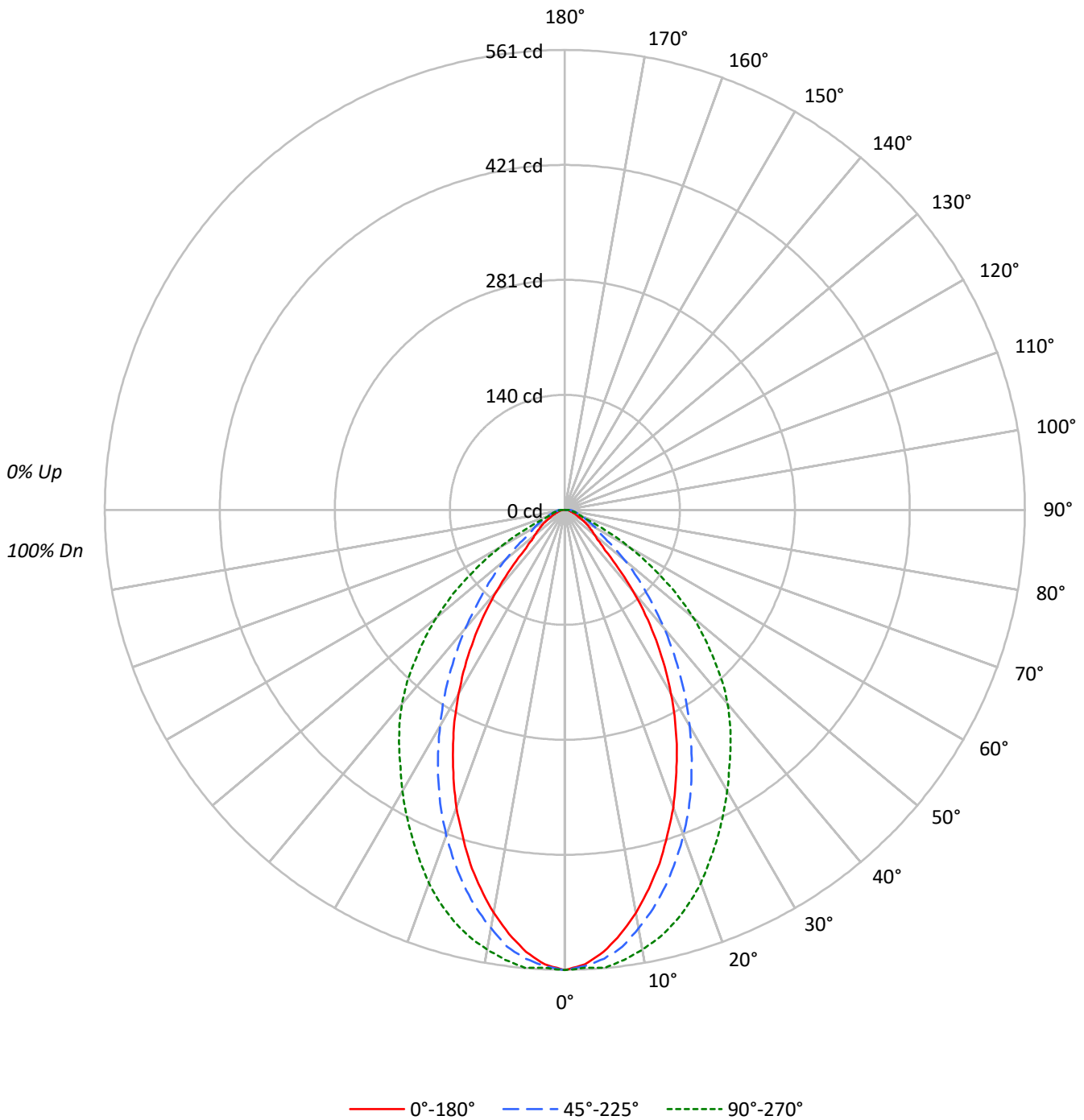
Lumens per Lamp: N/A
Luminaire Lumens: 753.7 lumens
Efficiency: N/A
Efficacy: 38.5 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (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	102	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	90	81	74	68	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	60	69	64	60	68	63	59	58				58
6	79	68	61	55	78	67	60	55	66	59	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	55	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	49	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6592	6592	6592
5°	6379	6478	6609
10°	5953	6179	6495
15°	5426	5773	6325
20°	4828	5281	6057
25°	4184	4725	5711
30°	3508	4123	5371
35°	2780	3509	5049
40°	1967	2886	4737
45°	1157	2282	4261
50°	866	1732	3732
55°	729	1171	2999
60°	589	998	2130
65°	464	853	1125
70°	409	742	694
75°	381	694	662
80°	379	757	663
85°	472	1132	849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4261 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.7	6.9
10°-20°	134.3	17.8
20°-30°	171.0	22.7
30°-40°	160.9	21.3
40°-50°	115.8	15.4
50°-60°	66.9	8.9
60°-70°	30.6	4.1
70°-80°	15.3	2.0
80°-90°	7.2	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°	357.0	47.4
0°-40°	517.8	68.7
0°-60°	700.6	93.0
0°-90°	753.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	753.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	561	561	561	561	561	
5°	541	550	550	555	561	50
15°	446	462	475	501	520	124
25°	323	340	365	405	441	148
35°	194	211	245	301	352	120
45°	70	87	137	206	257	59
55°	36	37	57	109	146	32
65°	17	24	31	34	40	17
75°	8	16	15	15	15	9
85°	4	8	8	8	6	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	561.4	561.4	561.4	561.4	561.4
2.5°	555.1	562.1	557.2	557.9	559.3
5°	541.2	550.3	549.6	555.1	560.7
7.5°	521.7	532.1	537.7	546.1	553.7
10°	499.3	511.2	518.2	533.5	544.7
12.5°	473.5	488.9	498.0	518.2	534.2
15°	446.3	462.4	474.9	501.4	520.3
17.5°	415.7	433.1	449.1	480.5	503.5
20°	386.4	403.1	422.6	456.8	484.7
22.5°	354.3	372.4	394.7	431.0	462.4
25°	322.9	339.6	364.7	405.2	440.8
27.5°	291.5	308.3	334.8	379.4	418.4
30°	258.7	276.2	304.1	353.6	396.1
32.5°	226.7	243.4	274.8	328.5	373.1
35°	193.9	210.6	244.8	301.3	352.2
37.5°	161.8	179.2	215.5	279.0	331.3
40°	128.3	147.2	188.3	256.0	309.0
42.5°	96.9	117.2	161.1	232.2	284.5
45°	69.7	87.2	137.4	206.4	256.6
47.5°	54.4	63.5	115.8	179.9	230.8
50°	47.4	48.8	94.8	155.5	204.3
52.5°	41.1	42.5	74.6	132.5	176.4
55°	35.6	37.0	57.2	108.8	146.5
57.5°	30.0	32.1	47.4	86.5	117.9
60°	25.1	27.9	42.5	66.3	90.7
62.5°	20.2	25.1	36.3	48.8	64.9
65°	16.7	23.7	30.7	34.2	40.5
67.5°	13.9	21.6	25.8	24.4	23.7
70°	11.9	19.5	21.6	19.5	20.2
72.5°	9.8	18.1	18.1	16.7	16.7
75°	8.4	16.0	15.3	14.6	14.6
77.5°	7.0	13.9	13.3	12.6	11.9
80°	5.6	11.2	11.2	10.5	9.8
82.5°	4.9	9.1	9.1	9.1	7.7
85°	3.5	7.7	8.4	7.7	6.3
87.5°	2.8	7.0	7.0	6.3	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)