

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: P1059258

Luminaire Tested: S123RDR-S560D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059258
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-S560D835-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

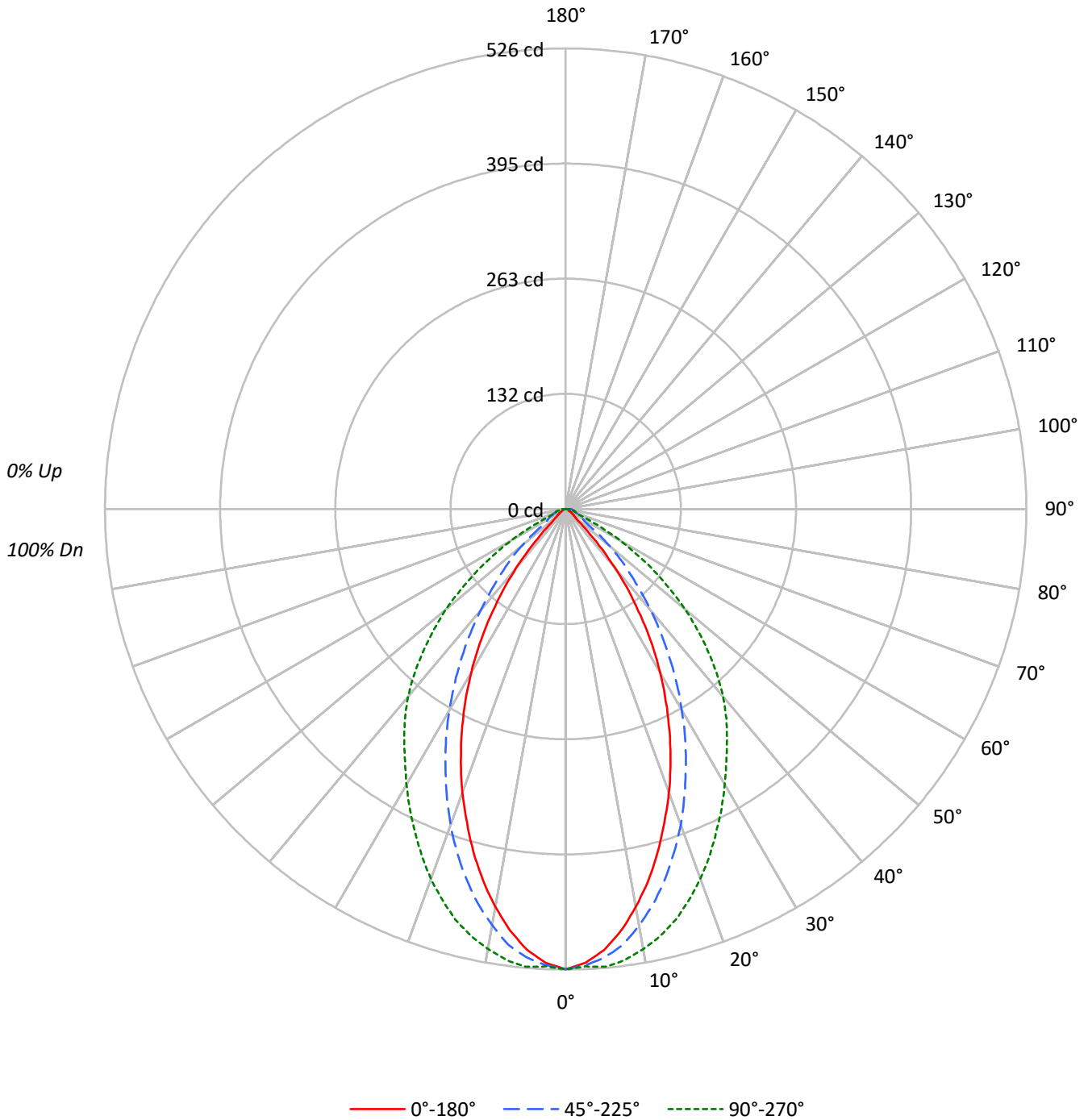
Lumens per Lamp: N/A
Luminaire Lumens: 631.2 lumens
Efficiency: N/A
Efficacy: 32.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6173	6173	6173
5°	5960	6057	6188
10°	5502	5757	6087
15°	4938	5323	5903
20°	4307	4800	5619
25°	3634	4207	5272
30°	2922	3597	4926
35°	2139	2960	4604
40°	1334	2308	4289
45°	505	1720	3819
50°	239	1186	3255
55°	184	651	2518
60°	129	552	1656
65°	97	481	692
70°	96	450	450
75°	127	472	472
80°	189	561	514
85°	377	930	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3819 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.3	7.6
10°-20°	123.7	19.6
20°-30°	153.2	24.3
30°-40°	137.3	21.8
40°-50°	90.0	14.3
50°-60°	45.1	7.1
60°-70°	17.6	2.8
70°-80°	9.9	1.6
80°-90°	6.1	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°	325.2	51.5
0°-40°	462.5	73.3
0°-60°	597.6	94.7
0°-90°	631.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	631.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	526	526	526	526	526	
5°	506	514	514	520	525	47
15°	406	423	438	467	486	113
25°	280	298	325	371	407	128
35°	149	169	206	269	321	93
45°	30	49	104	178	230	29
55°	9	11	32	87	123	8
65°	4	10	17	23	25	4
75°	3	10	10	10	10	3
85°	3	7	7	7	6	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	525.7	525.7	525.7	525.7	525.7
2.5°	518.8	526.4	521.5	522.2	522.9
5°	505.6	513.9	513.9	519.5	525.0
7.5°	485.6	495.3	502.2	511.9	519.5
10°	461.4	473.2	482.8	500.1	510.5
12.5°	435.2	449.7	462.1	484.9	499.4
15°	406.2	422.7	437.9	467.0	485.6
17.5°	375.1	391.7	411.7	445.5	468.3
20°	344.7	361.3	384.1	422.1	449.7
22.5°	312.9	330.2	354.4	396.5	429.0
25°	280.5	297.7	324.7	370.9	406.9
27.5°	248.0	265.3	295.6	346.1	385.4
30°	215.5	232.8	265.3	319.1	363.3
32.5°	183.1	201.7	235.6	294.3	341.2
35°	149.2	169.2	206.5	268.7	321.2
37.5°	118.1	136.8	178.9	246.6	301.2
40°	87.0	107.1	150.6	225.2	279.8
42.5°	56.6	78.1	125.0	201.7	255.6
45°	30.4	49.0	103.6	177.5	230.0
47.5°	16.6	26.9	83.6	152.0	203.8
50°	13.1	15.2	64.9	129.9	178.2
52.5°	11.1	12.4	46.3	109.1	149.9
55°	9.0	11.1	31.8	87.0	123.0
57.5°	7.6	9.7	24.9	67.7	96.0
60°	5.5	8.3	23.5	49.7	70.5
62.5°	4.1	9.0	20.7	34.5	46.3
65°	3.5	10.4	17.3	22.8	24.9
67.5°	2.8	11.1	15.2	14.5	14.5
70°	2.8	10.4	13.1	12.4	13.1
72.5°	2.8	11.1	11.7	11.1	11.7
75°	2.8	10.4	10.4	10.4	10.4
77.5°	2.8	9.7	9.7	9.0	9.0
80°	2.8	8.3	8.3	8.3	7.6
82.5°	2.8	7.6	7.6	7.6	6.2
85°	2.8	6.9	6.9	6.9	5.5
87.5°	2.1	6.2	6.9	6.2	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)