

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: P1059273

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059273
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D840-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

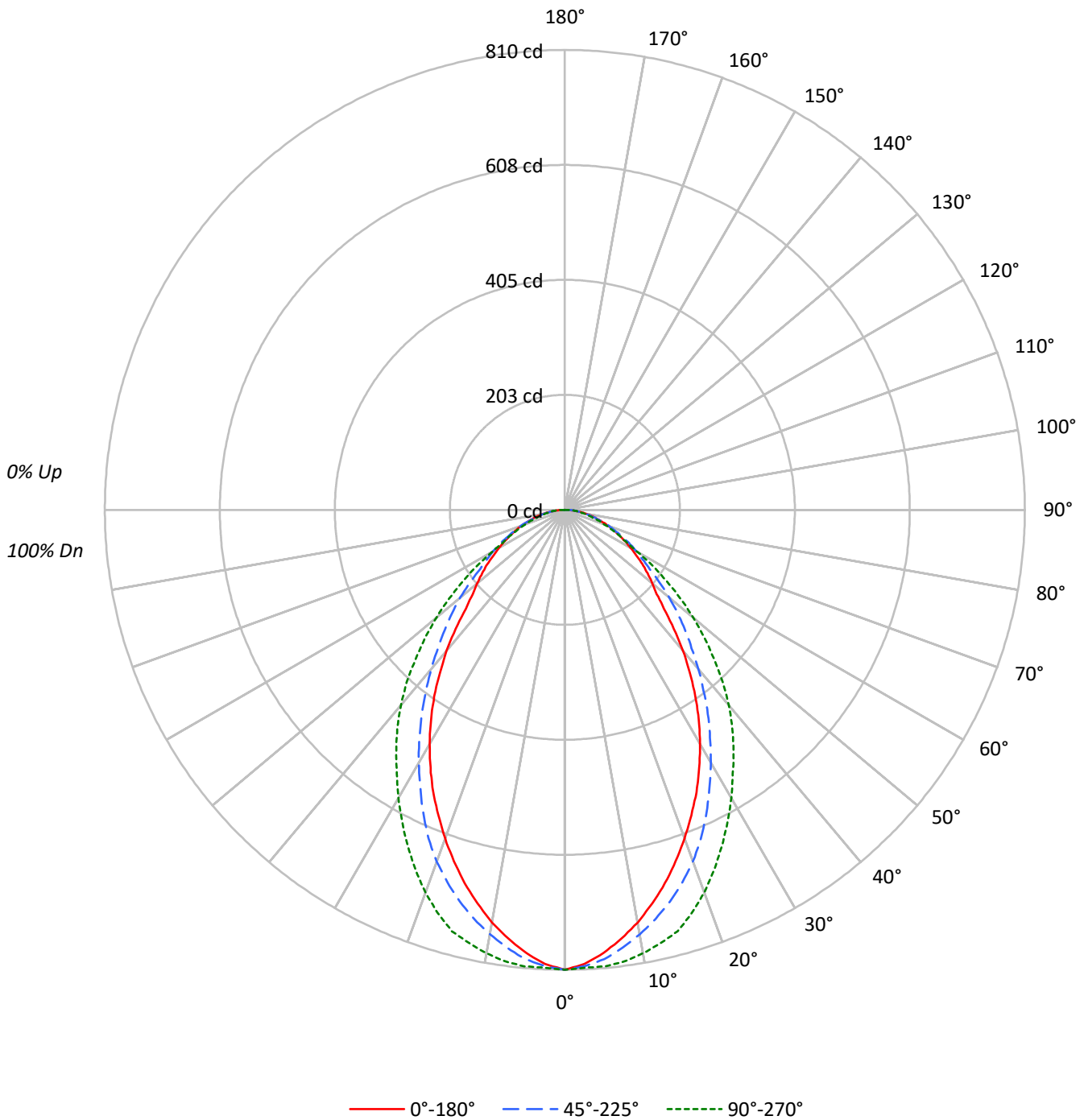
Lumens per Lamp: N/A
Luminaire Lumens: 1423.1 lumens
Efficiency: N/A
Efficacy: 72.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9510	9510	9510
5°	9234	9365	9514
10°	8801	9050	9458
15°	8277	8685	9338
20°	7699	8239	8962
25°	7107	7639	8471
30°	6454	6975	7948
35°	5745	6294	7423
40°	4957	5609	6880
45°	4097	4965	6169
50°	3679	4381	5385
55°	3411	3738	4467
60°	3142	3405	3422
65°	2923	3079	2867
70°	2753	2798	2513
75°	2595	2500	2214
80°	2448	2265	2076
85°	2344	2533	2344

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6169 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.0	5.3
10°-20°	202.1	14.2
20°-30°	273.4	19.2
30°-40°	280.9	19.7
40°-50°	235.9	16.6
50°-60°	169.2	11.9
60°-70°	107.7	7.6
70°-80°	59.2	4.2
80°-90°	19.7	1.4
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°	550.5	38.7
0°-40°	831.4	58.4
0°-60°	1236.5	86.9
0°-90°	1423.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1423.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	783	797	794	800	807	73
15°	681	700	714	745	768	191
25°	548	569	590	622	654	251
35°	401	422	439	478	518	249
45°	247	268	299	342	372	195
55°	167	170	183	207	218	149
65°	105	112	111	104	103	105
75°	57	63	55	51	49	61
85°	17	18	19	20	17	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	809.9	809.9	809.9	809.9	809.9
2.5°	800.8	812.0	804.3	805.0	807.1
5°	783.4	797.3	794.5	800.1	807.1
7.5°	761.8	777.1	777.8	791.1	802.2
10°	738.1	754.1	759.0	779.2	793.2
12.5°	710.2	727.6	738.1	763.2	781.3
15°	680.9	699.8	714.4	745.1	768.1
17.5°	648.9	669.1	687.9	720.7	744.4
20°	616.1	637.7	659.3	690.0	717.2
22.5°	582.0	604.3	626.6	656.5	686.5
25°	548.5	569.4	589.6	621.7	653.8
27.5°	512.3	533.9	551.3	586.8	620.3
30°	476.0	497.6	514.4	551.3	586.2
32.5°	438.4	460.7	476.0	514.4	550.6
35°	400.8	422.4	439.1	478.1	517.8
37.5°	361.0	384.7	401.5	445.4	484.4
40°	323.4	345.7	365.9	411.9	448.8
42.5°	284.4	307.4	330.4	377.8	411.9
45°	246.7	268.3	299.0	342.2	371.5
47.5°	219.5	233.5	269.0	305.3	333.2
50°	201.4	207.0	239.8	271.8	294.8
52.5°	183.3	187.5	209.8	239.1	256.5
55°	166.6	170.1	182.6	207.0	218.2
57.5°	148.5	151.9	162.4	176.3	182.6
60°	133.8	136.6	145.0	147.1	145.7
62.5°	119.2	123.4	127.5	122.7	120.6
65°	105.2	111.5	110.8	104.5	103.2
67.5°	92.7	99.0	95.5	89.2	87.1
70°	80.2	86.4	81.5	75.3	73.2
72.5°	68.3	75.3	67.6	62.0	60.6
75°	57.2	62.7	55.1	50.9	48.8
77.5°	46.7	50.9	43.9	40.4	39.0
80°	36.2	39.0	33.5	31.4	30.7
82.5°	26.5	27.9	24.4	25.8	25.1
85°	17.4	18.1	18.8	19.5	17.4
87.5°	8.4	11.8	11.8	11.2	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)