

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: P1059273

Luminaire Tested: S123RDRP-S560D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S123RDRP-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

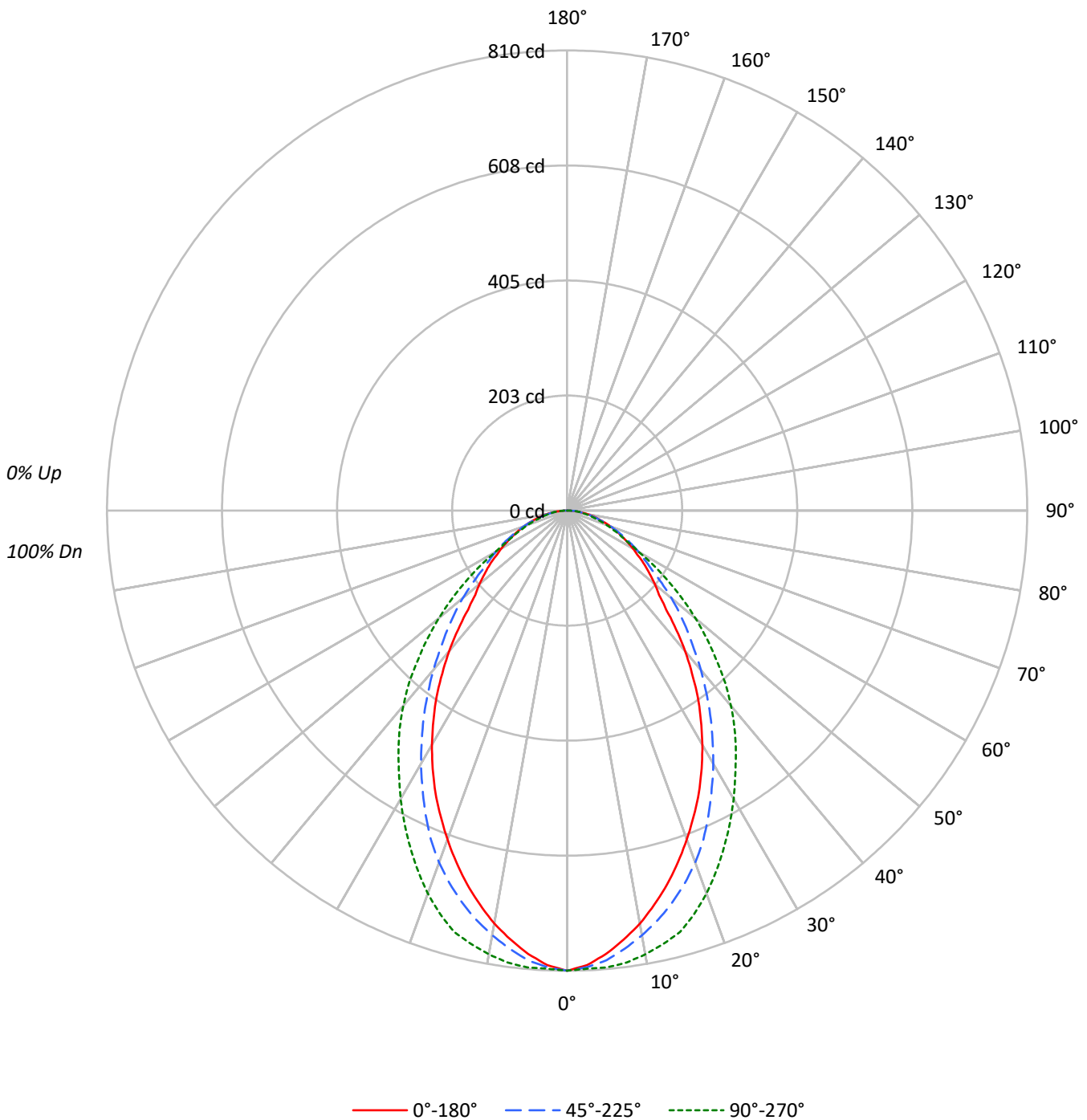
Lumens per Lamp: N/A
Luminaire Lumens: 1423.1 lumens
Efficiency: N/A
Efficacy: 72.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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



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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	15.01	16.47	15.37	16.79	17.10	16.08	17.54	16.44	17.86	18.17
	3H	16.71	18.02	17.09	18.35	18.71	17.16	18.47	17.54	18.80	19.17
	4H	17.36	18.59	17.76	18.94	19.32	17.57	18.79	17.97	19.14	19.52
	6H	17.86	19.00	18.28	19.37	19.76	17.88	19.01	18.29	19.38	19.77
	8H	18.04	19.12	18.46	19.51	19.91	18.01	19.09	18.44	19.48	19.88
	12H	18.16	19.19	18.59	19.58	20.01	18.13	19.16	18.56	19.54	19.97
4H	2H	15.61	16.84	16.01	17.19	17.57	16.48	17.71	16.88	18.06	18.44
	3H	17.54	18.56	17.95	18.96	19.36	17.80	18.82	18.21	19.22	19.62
	4H	18.35	19.27	18.78	19.68	20.12	18.32	19.24	18.75	19.65	20.09
	6H	19.00	19.79	19.46	20.24	20.70	18.75	19.55	19.21	19.99	20.45
	8H	19.22	19.96	19.68	20.41	20.88	18.94	19.69	19.41	20.13	20.60
	12H	19.39	20.06	19.88	20.54	21.01	19.13	19.79	19.61	20.27	20.74
8H	4H	18.59	19.33	19.05	19.78	20.25	18.57	19.31	19.03	19.75	20.22
	6H	19.38	19.99	19.87	20.48	20.96	19.11	19.73	19.61	20.22	20.70
	8H	19.69	20.24	20.20	20.75	21.24	19.39	19.94	19.91	20.45	20.94
	12H	19.96	20.45	20.47	20.94	21.51	19.68	20.17	20.19	20.66	21.23
12H	4H	18.60	19.26	19.08	19.74	20.22	18.59	19.26	19.08	19.74	20.21
	6H	19.41	19.96	19.93	20.47	20.96	19.17	19.72	19.68	20.23	20.72
	8H	19.79	20.27	20.30	20.77	21.33	19.51	20.00	20.02	20.49	21.06