

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: P1059316

Luminaire Tested: S123RDRP-S560D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059316
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D940-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

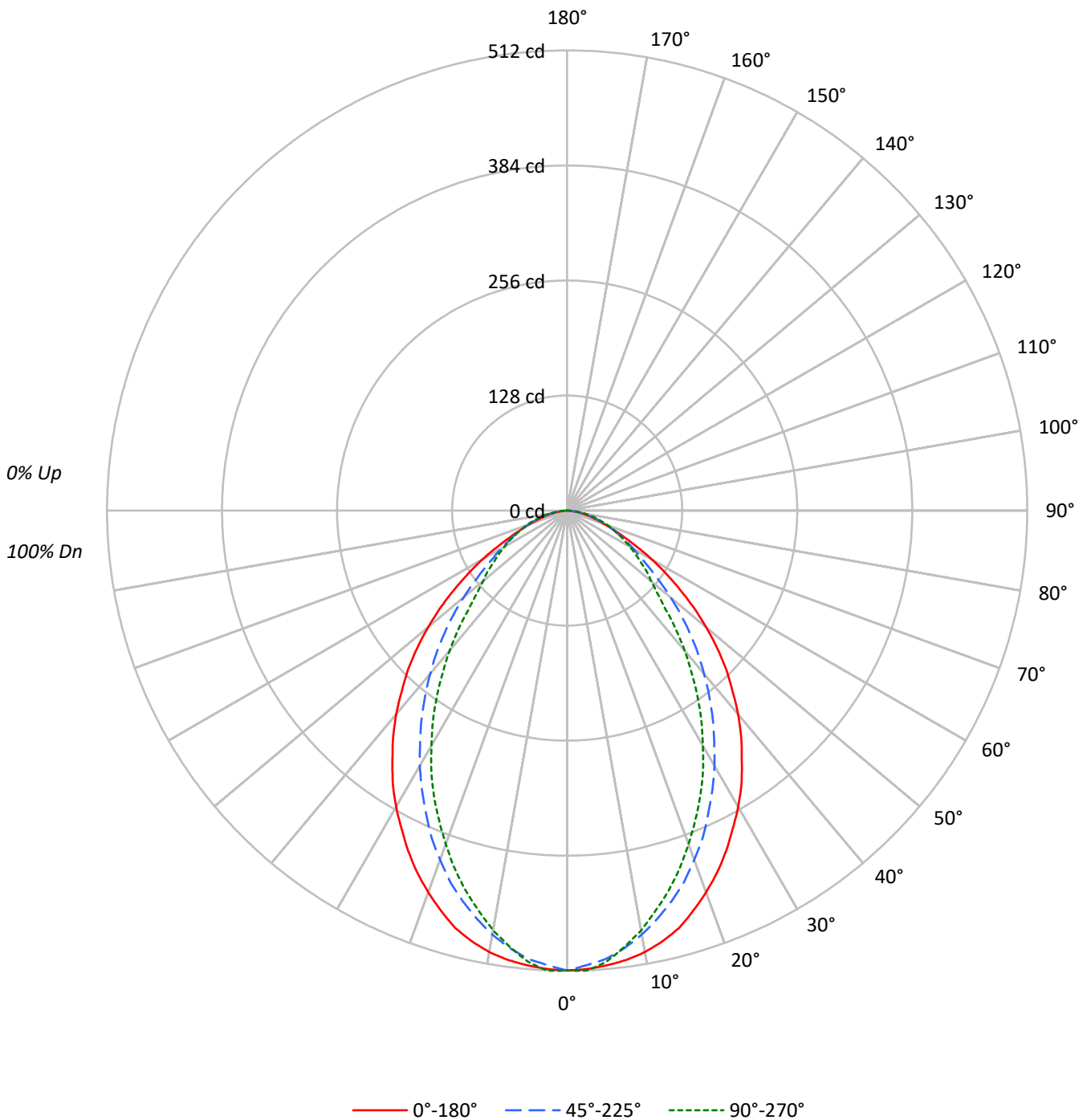
Lumens per Lamp: N/A
Luminaire Lumens: 895.0 lumens
Efficiency: N/A
Efficacy: 45.7 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6009	6009	6009
5°	5988	5901	5937
10°	5947	5713	5654
15°	5846	5466	5316
20°	5648	5165	4933
25°	5418	4813	4542
30°	5162	4445	4095
35°	4858	4047	3624
40°	4534	3630	3121
45°	4157	3207	2564
50°	3685	2753	2225
55°	3134	2303	2039
60°	2558	2008	1893
65°	1948	1778	1759
70°	1521	1583	1648
75°	1230	1425	1533
80°	913	1163	1413
85°	498	741	1240

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4157 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.5	5.3
10°-20°	127.8	14.3
20°-30°	173.7	19.4
30°-40°	180.1	20.1
40°-50°	151.9	17.0
50°-60°	107.8	12.0
60°-70°	65.9	7.4
70°-80°	32.8	3.7
80°-90°	7.4	0.8
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°	349.0	39.0
0°-40°	529.1	59.1
0°-60°	788.8	88.1
0°-90°	895.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	895.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	512	512	512	512	512	
5°	508	508	501	504	504	48
15°	481	472	450	442	437	135
25°	418	400	372	358	351	192
35°	339	313	282	263	253	212
45°	250	224	193	167	154	192
55°	153	137	112	103	100	137
65°	70	68	64	64	63	72
75°	27	29	31	33	34	29
85°	4	4	6	8	9	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	511.7	511.7	511.7	511.7	511.7
2.5°	510.5	511.1	506.1	511.7	512.3
5°	508.0	508.0	500.6	503.7	503.7
7.5°	504.3	503.1	490.8	490.8	489.5
10°	498.8	495.1	479.1	476.0	474.2
12.5°	490.8	484.6	464.9	459.4	455.7
15°	480.9	471.7	449.6	441.6	437.3
17.5°	466.8	457.6	433.0	421.9	417.0
20°	452.0	438.5	413.3	402.2	394.8
22.5°	436.0	418.8	394.2	380.7	372.7
25°	418.2	399.8	371.5	357.9	350.6
27.5°	399.1	378.8	349.9	334.6	327.2
30°	380.7	357.3	327.8	310.6	302.0
32.5°	361.0	334.6	304.4	286.6	278.0
35°	338.9	313.0	282.3	262.6	252.8
37.5°	318.0	291.5	259.5	238.6	227.6
40°	295.8	269.4	236.8	215.3	203.6
42.5°	272.4	247.2	215.3	190.0	179.0
45°	250.3	223.9	193.1	166.7	154.4
47.5°	226.3	201.7	171.6	144.5	135.9
50°	201.7	179.0	150.7	126.1	121.8
52.5°	177.7	158.7	129.8	113.8	111.9
55°	153.1	137.1	112.5	102.7	99.6
57.5°	130.4	118.7	96.6	91.6	90.4
60°	108.9	99.0	85.5	82.4	80.6
62.5°	87.9	82.4	74.4	73.2	72.0
65°	70.1	67.7	64.0	64.0	63.3
67.5°	55.4	55.4	54.7	56.0	55.4
70°	44.3	44.9	46.1	47.4	48.0
72.5°	35.1	36.9	38.1	40.0	40.6
75°	27.1	28.9	31.4	32.6	33.8
77.5°	19.7	21.5	24.0	25.8	27.1
80°	13.5	14.8	17.2	19.7	20.9
82.5°	8.6	9.2	11.1	13.5	14.8
85°	3.7	4.3	5.5	8.0	9.2
87.5°	0.0	0.0	0.6	2.5	4.3
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	15.04	16.49	15.40	16.80	17.12	13.13	14.58	13.50	14.90	15.21
	3H	15.94	17.23	16.32	17.56	17.92	14.71	16.01	15.09	16.33	16.70
	4H	16.22	17.43	16.62	17.78	18.16	15.30	16.52	15.71	16.87	17.25
	6H	16.37	17.49	16.78	17.86	18.25	15.76	16.87	16.17	17.24	17.63
	8H	16.39	17.46	16.82	17.85	18.25	15.91	16.97	16.33	17.36	17.76
	12H	16.39	17.40	16.82	17.79	18.21	16.00	17.02	16.44	17.40	17.83
4H	2H	15.28	16.50	15.68	16.85	17.23	13.68	14.89	14.08	15.24	15.62
	3H	16.40	17.40	16.81	17.80	18.20	15.45	16.45	15.86	16.85	17.26
	4H	16.79	17.69	17.22	18.10	18.54	16.16	17.06	16.60	17.48	17.92
	6H	17.03	17.81	17.49	18.25	18.71	16.74	17.51	17.19	17.96	18.42
	8H	17.07	17.80	17.54	18.24	18.71	16.93	17.65	17.39	18.10	18.57
	12H	17.08	17.73	17.56	18.21	18.68	17.07	17.71	17.55	18.19	18.67
8H	4H	16.95	17.67	17.41	18.12	18.59	16.37	17.10	16.84	17.55	18.01
	6H	17.26	17.86	17.76	18.35	18.83	17.05	17.65	17.55	18.14	18.62
	8H	17.33	17.87	17.85	18.38	18.87	17.31	17.84	17.82	18.35	18.84
	12H	17.37	17.84	17.88	18.34	18.90	17.51	17.99	18.03	18.48	19.05
12H	4H	16.95	17.60	17.43	18.08	18.55	16.37	17.02	16.85	17.50	17.97
	6H	17.27	17.81	17.79	18.32	18.81	17.06	17.60	17.57	18.11	18.60
	8H	17.39	17.86	17.90	18.35	18.92	17.36	17.84	17.87	18.33	18.90