

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: P1059315

Luminaire Tested: S123RDRP-S560D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059315
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: S123RDRP-S560D940-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, 90 CRI LEDS
Ballast/Driver: -

Summary

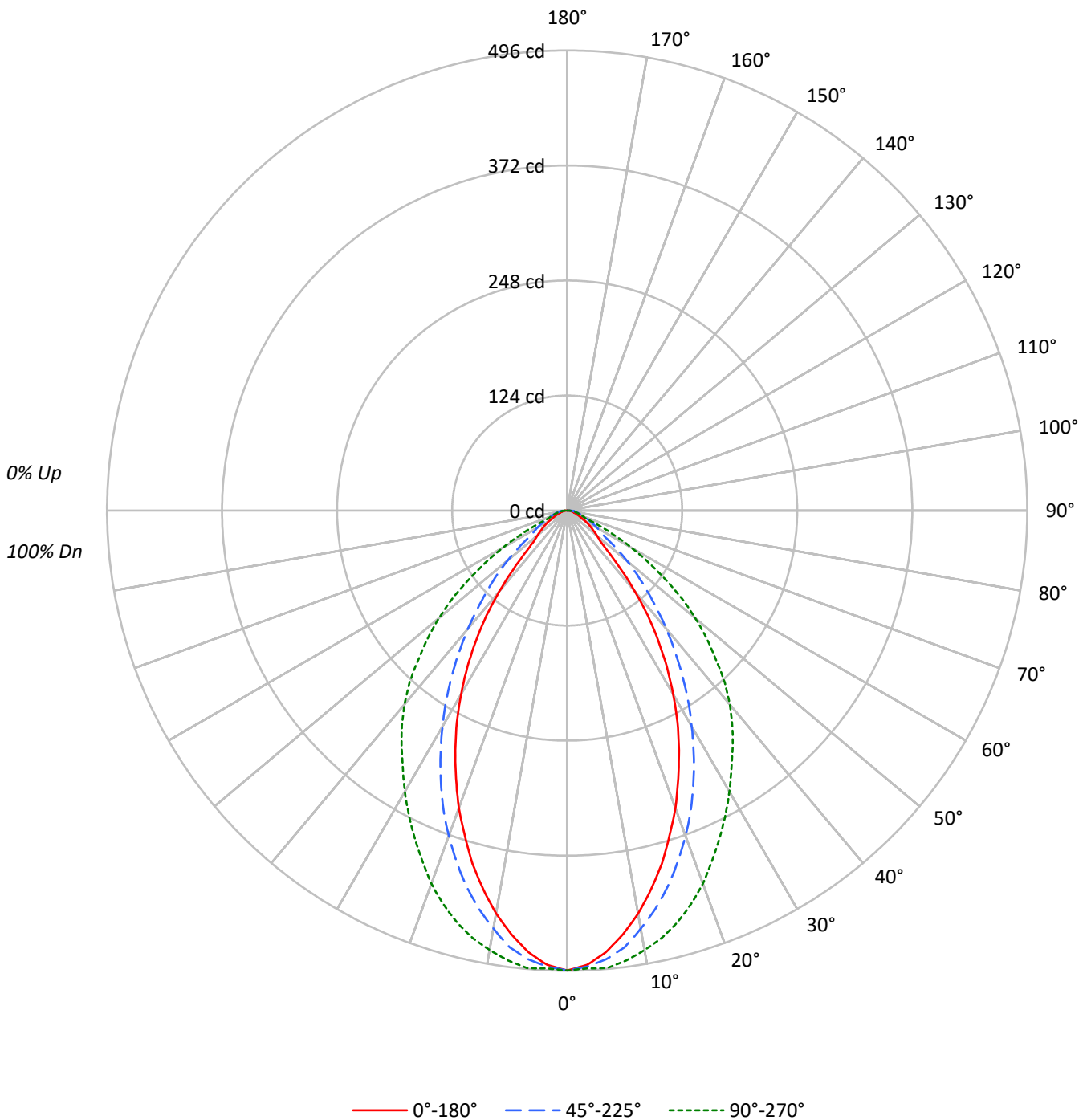
Lumens per Lamp: N/A
Luminaire Lumens: 665.5 lumens
Efficiency: N/A
Efficacy: 34.0 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5821	5821	5821
5°	5633	5720	5836
10°	5257	5456	5735
15°	4791	5099	5585
20°	4264	4664	5348
25°	3694	4173	5043
30°	3098	3641	4743
35°	2454	3099	4458
40°	1737	2549	4182
45°	1023	2014	3763
50°	765	1531	3296
55°	643	1034	2647
60°	521	883	1881
65°	411	753	992
70°	360	656	615
75°	336	612	585
80°	331	669	582
85°	418	997	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3763 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.6	6.9
10°-20°	118.6	17.8
20°-30°	151.0	22.7
30°-40°	142.0	21.3
40°-50°	102.3	15.4
50°-60°	59.1	8.9
60°-70°	27.0	4.1
70°-80°	13.5	2.0
80°-90°	6.4	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°	315.2	47.4
0°-40°	457.2	68.7
0°-60°	618.6	93.0
0°-90°	665.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	665.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	496	496	496	496	496	
5°	478	486	485	490	495	44
15°	394	408	419	443	459	110
25°	285	300	322	358	389	130
35°	171	186	216	266	311	106
45°	62	77	121	182	227	52
55°	31	33	50	96	129	28
65°	15	21	27	30	36	15
75°	7	14	14	13	13	8
85°	3	7	7	7	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	495.7	495.7	495.7	495.7	495.7
2.5°	490.2	496.3	492.0	492.7	493.9
5°	477.9	485.9	485.3	490.2	495.1
7.5°	460.6	469.9	474.8	482.2	489.0
10°	440.9	451.4	457.6	471.1	481.0
12.5°	418.1	431.7	439.7	457.6	471.7
15°	394.1	408.3	419.4	442.8	459.4
17.5°	367.0	382.4	396.6	424.3	444.6
20°	341.2	355.9	373.2	403.4	428.0
22.5°	312.8	328.8	348.6	380.6	408.3
25°	285.1	299.9	322.1	357.8	389.2
27.5°	257.4	272.2	295.6	335.0	369.5
30°	228.5	243.9	268.5	312.2	349.8
32.5°	200.1	214.9	242.6	290.0	329.5
35°	171.2	186.0	216.2	266.0	311.0
37.5°	142.9	158.3	190.3	246.3	292.5
40°	113.3	129.9	166.3	226.0	272.8
42.5°	85.6	103.5	142.3	205.1	251.3
45°	61.6	77.0	121.3	182.3	226.6
47.5°	48.0	56.0	102.2	158.9	203.8
50°	41.9	43.1	83.8	137.3	180.4
52.5°	36.3	37.6	65.9	117.0	155.8
55°	31.4	32.6	50.5	96.1	129.3
57.5°	26.5	28.3	41.9	76.4	104.1
60°	22.2	24.6	37.6	58.5	80.1
62.5°	17.9	22.2	32.0	43.1	57.3
65°	14.8	20.9	27.1	30.2	35.7
67.5°	12.3	19.1	22.8	21.6	20.9
70°	10.5	17.2	19.1	17.2	17.9
72.5°	8.6	16.0	16.0	14.8	14.8
75°	7.4	14.2	13.5	12.9	12.9
77.5°	6.2	12.3	11.7	11.1	10.5
80°	4.9	9.9	9.9	9.2	8.6
82.5°	4.3	8.0	8.0	8.0	6.8
85°	3.1	6.8	7.4	6.8	5.5
87.5°	2.5	6.2	6.2	5.5	3.7
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	6.09	7.40	6.45	7.72	8.03	13.46	14.78	13.82	15.09	15.40
	3H	7.48	8.65	7.85	8.98	9.34	13.69	14.86	14.07	15.19	15.55
	4H	8.03	9.12	8.43	9.47	9.85	13.80	14.89	14.20	15.24	15.63
	6H	8.47	9.47	8.88	9.84	10.23	13.92	14.92	14.33	15.29	15.68
	8H	8.64	9.59	9.07	9.98	10.39	13.97	14.92	14.40	15.31	15.71
	12H	8.80	9.71	9.23	10.09	10.52	14.03	14.93	14.46	15.32	15.75
4H	2H	7.19	8.28	7.59	8.63	9.01	13.41	14.50	13.82	14.86	15.24
	3H	8.85	9.74	9.26	10.15	10.55	13.77	14.67	14.19	15.07	15.47
	4H	9.66	10.46	10.10	10.88	11.32	13.97	14.77	14.40	15.19	15.63
	6H	10.30	10.99	10.76	11.44	11.90	14.20	14.89	14.66	15.33	15.80
	8H	10.53	11.18	11.00	11.63	12.10	14.30	14.95	14.77	15.39	15.86
	12H	10.75	11.32	11.24	11.80	12.28	14.43	15.00	14.92	15.48	15.96
8H	4H	10.10	10.75	10.57	11.20	11.67	14.01	14.65	14.48	15.10	15.57
	6H	11.02	11.55	11.52	12.05	12.53	14.34	14.87	14.84	15.36	15.84
	8H	11.44	11.91	11.96	12.43	12.92	14.52	15.00	15.05	15.52	16.01
	12H	11.86	12.28	12.37	12.77	13.34	14.77	15.20	15.29	15.69	16.26
12H	4H	10.16	10.73	10.65	11.22	11.69	14.00	14.57	14.48	15.05	15.53
	6H	11.15	11.63	11.67	12.15	12.64	14.35	14.83	14.87	15.34	15.84
	8H	11.69	12.11	12.21	12.61	13.18	14.61	15.03	15.12	15.52	16.10