

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: P1059261

Luminaire Tested: S123RDRP-S560D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059261
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-S560D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

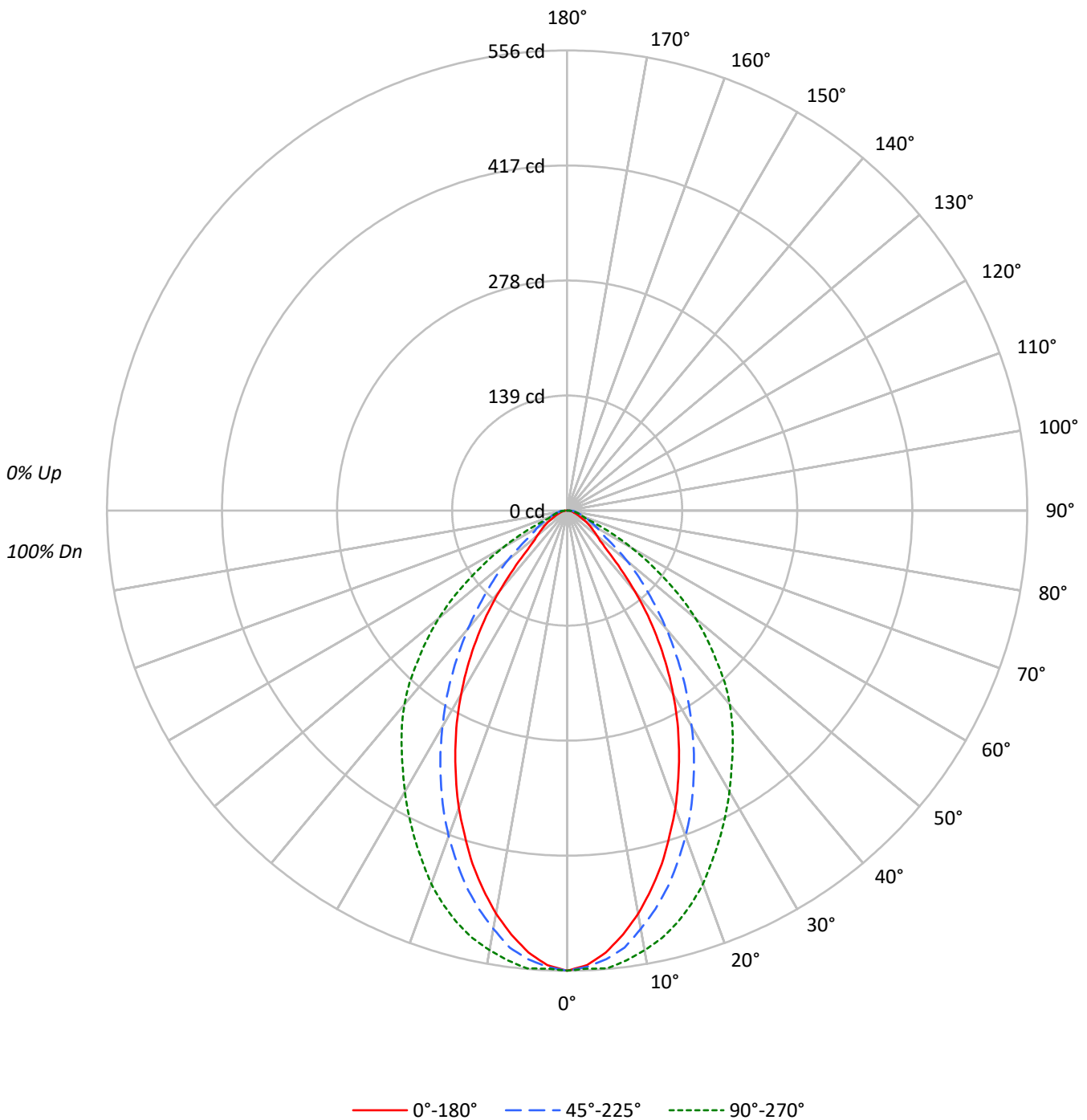
Lumens per Lamp: N/A
Luminaire Lumens: 746.3 lumens
Efficiency: N/A
Efficacy: 38.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	6528	6528	6528
5°	6317	6415	6544
10°	5896	6118	6432
15°	5373	5717	6263
20°	4781	5230	5998
25°	4142	4680	5655
30°	3474	4083	5319
35°	2752	3475	5000
40°	1948	2859	4689
45°	1147	2258	4220
50°	859	1715	3696
55°	721	1159	2968
60°	585	989	2109
65°	461	845	1114
70°	402	735	687
75°	377	690	658
80°	372	744	656
85°	472	1118	835

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4220 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.2	6.9
10°-20°	133.0	17.8
20°-30°	169.3	22.7
30°-40°	159.3	21.3
40°-50°	114.7	15.4
50°-60°	66.2	8.9
60°-70°	30.3	4.1
70°-80°	15.1	2.0
80°-90°	7.2	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°	353.5	47.4
0°-40°	512.8	68.7
0°-60°	693.7	93.0
0°-90°	746.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	746.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	556	556	556	556	556	
5°	536	545	544	550	555	50
15°	442	458	470	496	515	123
25°	320	336	361	401	436	146
35°	192	209	242	298	349	119
45°	69	86	136	204	254	58
55°	35	37	57	108	145	32
65°	17	24	30	34	40	17
75°	8	16	15	14	14	9
85°	4	8	8	8	6	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	555.9	555.9	555.9	555.9	555.9
2.5°	549.7	556.6	551.8	552.5	553.9
5°	535.9	544.9	544.2	549.7	555.2
7.5°	516.6	526.9	532.5	540.7	548.3
10°	494.5	506.2	513.1	528.3	539.4
12.5°	468.9	484.1	493.1	513.1	529.0
15°	442.0	457.9	470.3	496.5	515.2
17.5°	411.6	428.9	444.7	475.8	498.6
20°	382.6	399.2	418.5	452.3	480.0
22.5°	350.8	368.8	390.9	426.8	457.9
25°	319.7	336.3	361.2	401.2	436.5
27.5°	288.7	305.2	331.5	375.7	414.4
30°	256.2	273.5	301.1	350.1	392.3
32.5°	224.4	241.0	272.1	325.3	369.5
35°	192.0	208.6	242.4	298.3	348.8
37.5°	160.2	177.5	213.4	276.2	328.0
40°	127.1	145.7	186.5	253.5	305.9
42.5°	96.0	116.0	159.5	230.0	281.8
45°	69.1	86.3	136.0	204.4	254.1
47.5°	53.9	62.8	114.6	178.2	228.6
50°	47.0	48.3	93.9	154.0	202.3
52.5°	40.7	42.1	73.9	131.2	174.7
55°	35.2	36.6	56.6	107.7	145.0
57.5°	29.7	31.8	47.0	85.6	116.7
60°	24.9	27.6	42.1	65.6	89.8
62.5°	20.0	24.9	35.9	48.3	64.2
65°	16.6	23.5	30.4	33.8	40.1
67.5°	13.8	21.4	25.6	24.2	23.5
70°	11.7	19.3	21.4	19.3	20.0
72.5°	9.7	18.0	18.0	16.6	16.6
75°	8.3	15.9	15.2	14.5	14.5
77.5°	6.9	13.8	13.1	12.4	11.7
80°	5.5	11.0	11.0	10.4	9.7
82.5°	4.8	9.0	9.0	9.0	7.6
85°	3.5	7.6	8.3	7.6	6.2
87.5°	2.8	6.9	6.9	6.2	4.1
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	6.49	7.81	6.86	8.13	8.44	13.85	15.17	14.21	15.48	15.80
	3H	7.88	9.05	8.26	9.38	9.74	14.08	15.25	14.46	15.58	15.94
	4H	8.43	9.52	8.84	9.87	10.26	14.20	15.29	14.60	15.64	16.02
	6H	8.86	9.87	9.28	10.24	10.63	14.31	15.31	14.72	15.68	16.08
	8H	9.04	9.99	9.47	10.38	10.78	14.36	15.31	14.79	15.70	16.11
	12H	9.20	10.10	9.63	10.49	10.92	14.42	15.33	14.85	15.71	16.14
4H	2H	7.59	8.68	8.00	9.03	9.42	13.81	14.90	14.21	15.25	15.63
	3H	9.25	10.15	9.66	10.55	10.95	14.17	15.06	14.58	15.47	15.87
	4H	10.06	10.86	10.50	11.28	11.73	14.37	15.16	14.80	15.58	16.03
	6H	10.70	11.39	11.16	11.83	12.30	14.59	15.28	15.06	15.73	16.20
	8H	10.93	11.58	11.40	12.02	12.49	14.70	15.34	15.17	15.79	16.26
	12H	11.14	11.72	11.63	12.20	12.67	14.83	15.40	15.31	15.88	16.35
8H	4H	10.51	11.15	10.97	11.60	12.07	14.40	15.05	14.87	15.50	15.97
	6H	11.41	11.94	11.91	12.44	12.92	14.73	15.26	15.23	15.76	16.24
	8H	11.83	12.31	12.35	12.82	13.31	14.92	15.40	15.44	15.91	16.41
	12H	12.25	12.67	12.76	13.17	13.74	15.17	15.59	15.69	16.09	16.66
12H	4H	10.56	11.13	11.05	11.62	12.09	14.39	14.96	14.88	15.45	15.92
	6H	11.55	12.02	12.07	12.54	13.03	14.75	15.22	15.27	15.74	16.23
	8H	12.08	12.51	12.60	13.00	13.57	15.01	15.43	15.52	15.92	16.49