

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1059540

Luminaire Tested: S123RDR-H1165D930-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059540
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: S123RDR-H1165D930-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

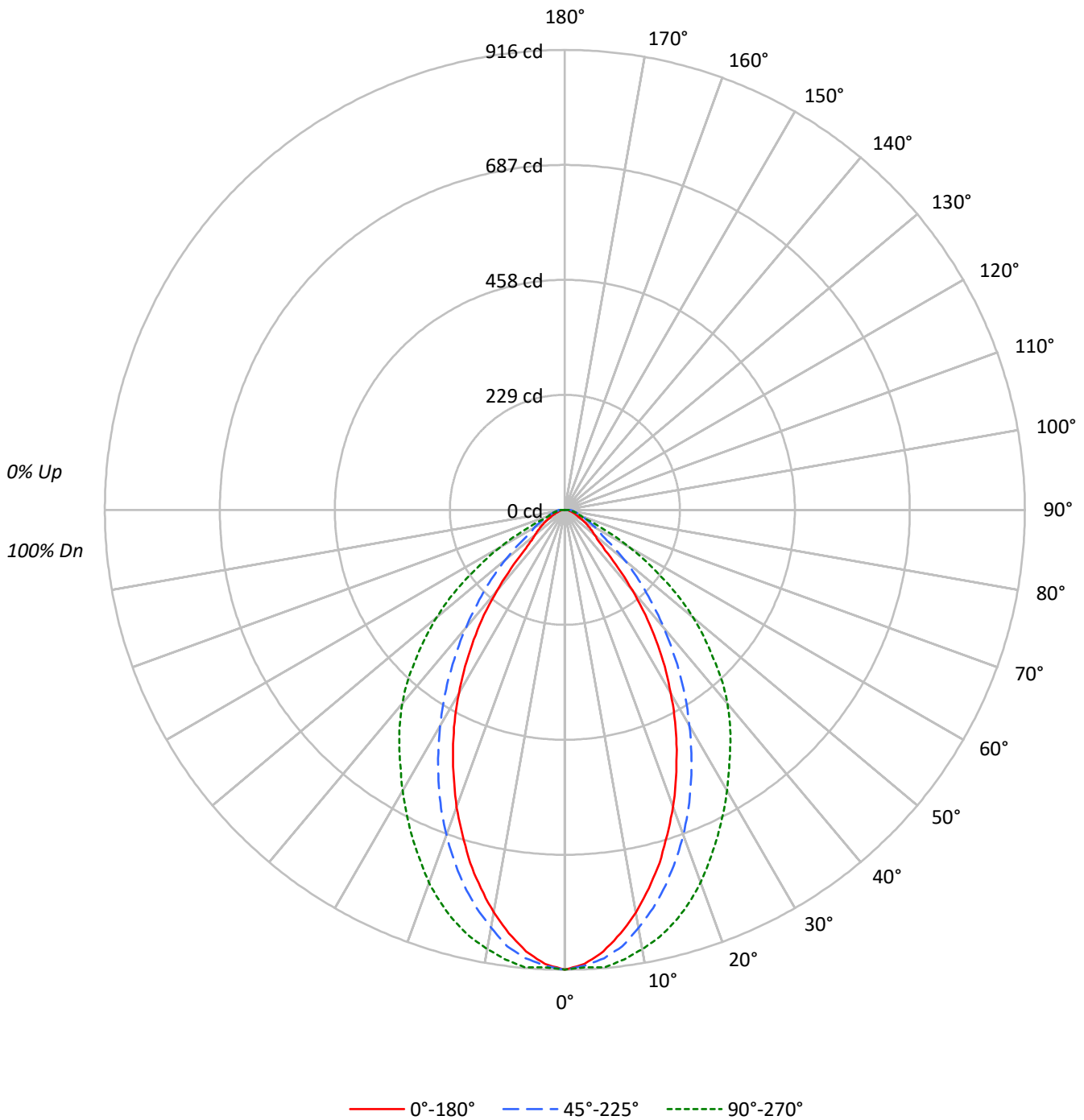
Lumens per Lamp: N/A
Luminaire Lumens: 1229.2 lumens
Efficiency: N/A
Efficacy: 33.7 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10753	10753	10753
5°	10405	10565	10779
10°	9711	10077	10593
15°	8850	9417	10316
20°	7875	8614	9878
25°	6824	7708	9314
30°	5722	6724	8760
35°	4533	5724	8234
40°	3208	4707	7724
45°	1888	3721	6951
50°	1412	2826	6089
55°	1187	1910	4891
60°	961	1630	3473
65°	759	1389	1834
70°	663	1212	1133
75°	617	1134	1084
80°	615	1231	1075
85°	768	1832	1374

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6951 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	6.9
10°-20°	219.0	17.8
20°-30°	278.9	22.7
30°-40°	262.4	21.3
40°-50°	189.0	15.4
50°-60°	109.1	8.9
60°-70°	49.9	4.1
70°-80°	24.9	2.0
80°-90°	11.8	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°	582.2	47.4
0°-40°	844.6	68.7
0°-60°	1142.6	93.0
0°-90°	1229.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1229.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	916	916	916	916	916	
5°	883	898	896	905	914	82
15°	728	754	775	818	849	203
25°	527	554	595	661	719	241
35°	316	344	399	491	574	196
45°	114	142	224	337	419	96
55°	58	60	93	177	239	52
65°	27	39	50	56	66	28
75°	14	26	25	24	24	15
85°	6	12	14	12	10	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	915.7	915.7	915.7	915.7	915.7
2.5°	905.4	916.8	908.8	910.0	912.3
5°	882.7	897.5	896.3	905.4	914.5
7.5°	850.8	867.9	877.0	890.6	903.2
10°	814.4	833.8	845.1	870.2	888.4
12.5°	772.3	797.4	812.2	845.1	871.3
15°	728.0	754.1	774.6	817.8	848.6
17.5°	677.9	706.4	732.5	783.7	821.3
20°	630.2	657.5	689.3	745.0	790.5
22.5°	577.8	607.4	643.8	703.0	754.1
25°	526.7	553.9	594.9	660.9	718.9
27.5°	475.5	502.8	546.0	618.8	682.5
30°	422.0	450.4	495.9	576.7	646.1
32.5°	369.7	397.0	448.2	535.8	608.5
35°	316.2	343.5	399.3	491.4	574.4
37.5°	263.9	292.3	351.5	455.0	540.3
40°	209.3	240.0	307.1	417.5	503.9
42.5°	158.1	191.1	262.8	378.8	464.1
45°	113.7	142.2	224.1	336.7	418.6
47.5°	88.7	103.5	188.8	293.5	376.5
50°	77.3	79.6	154.7	253.7	333.3
52.5°	67.1	69.4	121.7	216.1	287.8
55°	58.0	60.3	93.3	177.4	238.9
57.5°	48.9	52.3	77.3	141.0	192.2
60°	40.9	45.5	69.4	108.1	147.9
62.5°	33.0	40.9	59.1	79.6	105.8
65°	27.3	38.7	50.0	55.7	66.0
67.5°	22.7	35.3	42.1	39.8	38.7
70°	19.3	31.8	35.3	31.8	33.0
72.5°	15.9	29.6	29.6	27.3	27.3
75°	13.6	26.2	25.0	23.9	23.9
77.5°	11.4	22.7	21.6	20.5	19.3
80°	9.1	18.2	18.2	17.1	15.9
82.5°	8.0	14.8	14.8	14.8	12.5
85°	5.7	12.5	13.6	12.5	10.2
87.5°	4.5	11.4	11.4	10.2	6.8
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	8.22	9.54	8.58	9.85	10.17	15.58	16.90	15.95	17.22	17.53
	3H	9.61	10.78	9.99	11.11	11.47	15.81	16.98	16.19	17.31	17.68
	4H	10.16	11.25	10.56	11.60	11.98	15.93	17.02	16.33	17.37	17.75
	6H	10.60	11.60	11.01	11.97	12.36	16.04	17.05	16.46	17.42	17.81
	8H	10.77	11.72	11.20	12.11	12.52	16.09	17.04	16.52	17.44	17.84
	12H	10.93	11.84	11.36	12.22	12.65	16.15	17.06	16.59	17.44	17.87
4H	2H	9.32	10.41	9.72	10.76	11.14	15.54	16.63	15.94	16.98	17.37
	3H	10.98	11.87	11.39	12.28	12.68	15.90	16.80	16.31	17.20	17.60
	4H	11.79	12.59	12.23	13.01	13.45	16.10	16.90	16.53	17.32	17.76
	6H	12.43	13.12	12.89	13.57	14.03	16.33	17.02	16.79	17.46	17.93
	8H	12.66	13.31	13.13	13.76	14.23	16.43	17.08	16.90	17.52	17.99
	12H	12.88	13.45	13.37	13.93	14.41	16.56	17.13	17.04	17.61	18.09
8H	4H	12.23	12.88	12.70	13.33	13.80	16.14	16.78	16.61	17.23	17.70
	6H	13.15	13.68	13.65	14.17	14.65	16.47	17.00	16.97	17.49	17.97
	8H	13.57	14.04	14.09	14.56	15.05	16.66	17.13	17.18	17.65	18.14
	12H	13.98	14.41	14.50	14.90	15.47	16.90	17.33	17.42	17.82	18.39
12H	4H	12.29	12.86	12.78	13.35	13.82	16.13	16.70	16.61	17.18	17.65
	6H	13.28	13.76	13.80	14.27	14.76	16.48	16.96	17.00	17.47	17.97
	8H	13.82	14.24	14.34	14.74	15.31	16.74	17.16	17.25	17.66	18.23