

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: P1059425

Luminaire Tested: S123RDR-H1000D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059425
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

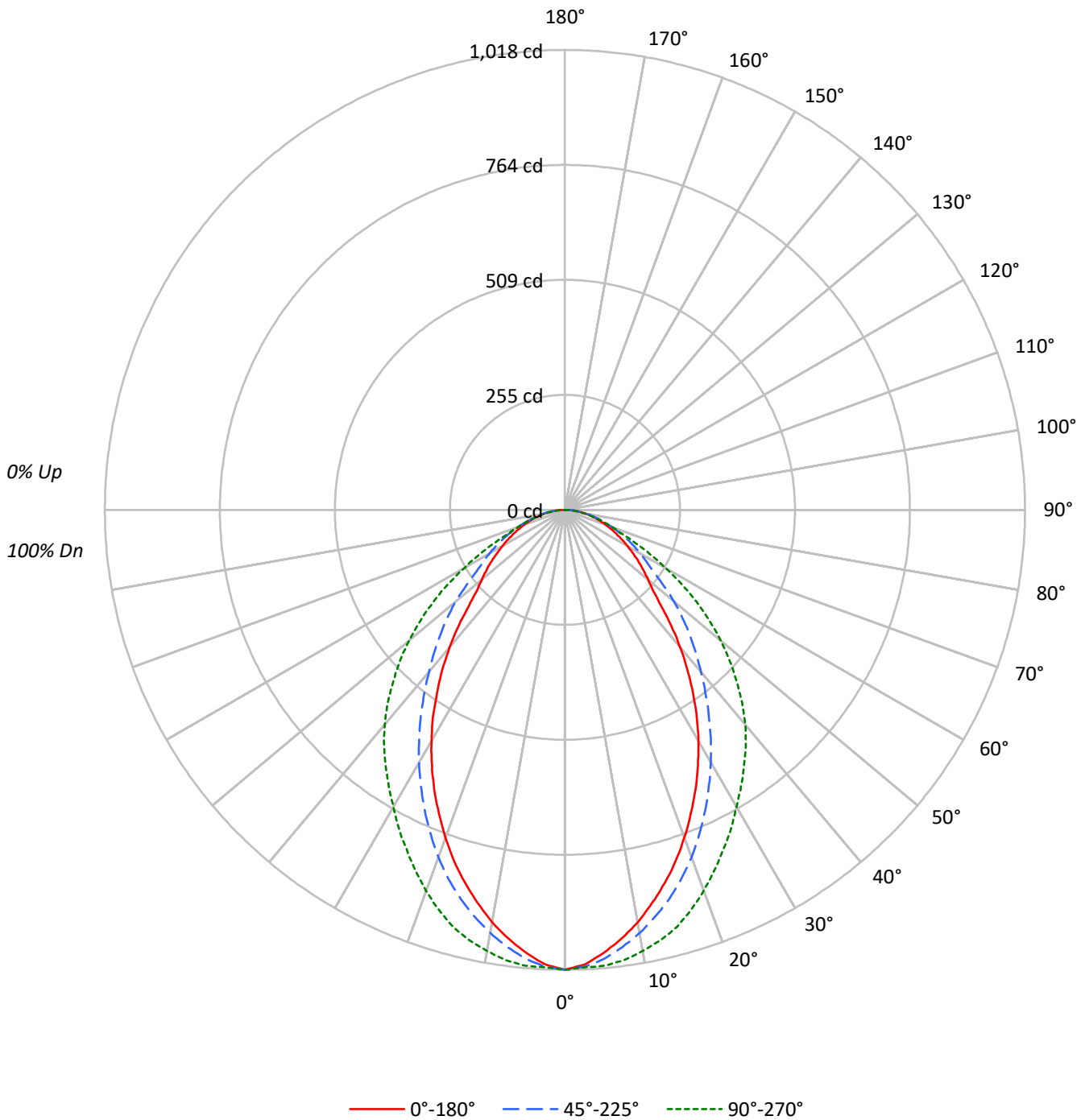
Lumens per Lamp: N/A
Luminaire Lumens: 1838.9 lumens
Efficiency: N/A
Efficacy: 58.9 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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				
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11954	11954	11954
5°	11606	11760	11943
10°	11057	11342	11826
15°	10388	10838	11622
20°	9649	10231	11215
25°	8860	9510	10746
30°	8011	8755	10291
35°	7066	7956	9905
40°	6073	7171	9513
45°	4994	6462	8919
50°	4382	5756	8219
55°	4056	4911	7280
60°	3727	4511	6026
65°	3481	4146	4743
70°	3279	3770	3770
75°	3085	3466	3248
80°	2908	3144	2745
85°	2735	3058	2088

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8919 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.1	5.1
10°-20°	252.3	13.7
20°-30°	342.1	18.6
30°-40°	357.7	19.5
40°-50°	310.3	16.9
50°-60°	230.8	12.6
60°-70°	148.1	8.1
70°-80°	79.4	4.3
80°-90°	24.0	1.3
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°	688.6	37.4
0°-40°	1046.4	56.9
0°-60°	1587.4	86.3
0°-90°	1838.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1838.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1018	1018	1018	1018	1018	
5°	985	1001	998	1005	1013	92
15°	854	875	892	927	956	239
25°	684	705	734	783	829	314
35°	493	517	555	625	691	308
45°	301	323	389	473	537	237
55°	198	203	240	308	356	177
65°	125	136	149	159	171	125
75°	68	79	76	73	72	72
85°	20	25	23	19	16	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1018.0	1018.0	1018.0	1018.0	1018.0
2.5°	1007.3	1021.6	1012.0	1012.0	1013.2
5°	984.6	1001.3	997.7	1004.9	1013.2
7.5°	957.1	975.0	976.2	992.9	1004.9
10°	927.3	945.2	951.2	975.0	991.8
12.5°	891.5	911.8	922.5	952.4	976.2
15°	854.5	874.8	891.5	927.3	956.0
17.5°	815.1	835.4	856.9	897.5	928.5
20°	772.2	793.6	818.7	859.3	897.5
22.5°	728.0	750.7	776.9	821.1	864.1
25°	683.8	705.3	734.0	782.9	829.4
27.5°	637.3	660.0	689.8	743.5	796.0
30°	590.8	613.4	645.7	702.9	759.0
32.5°	543.0	565.7	600.3	664.8	725.6
35°	492.9	516.8	555.0	625.4	691.0
37.5°	445.2	467.8	510.8	588.4	657.6
40°	396.2	420.1	467.8	551.4	620.6
42.5°	348.5	372.4	428.4	512.0	580.0
45°	300.7	323.4	389.1	472.6	537.1
47.5°	263.8	280.5	352.1	430.8	495.3
50°	239.9	245.9	315.1	390.3	449.9
52.5°	218.4	223.2	274.5	349.7	403.4
55°	198.1	202.9	239.9	307.9	355.6
57.5°	177.8	183.8	213.6	264.9	307.9
60°	158.7	165.9	192.1	226.8	256.6
62.5°	142.0	150.4	170.7	192.1	212.4
65°	125.3	136.1	149.2	158.7	170.7
67.5°	109.8	121.7	128.9	131.3	132.5
70°	95.5	107.4	109.8	109.8	109.8
72.5°	81.2	94.3	91.9	90.7	89.5
75°	68.0	78.8	76.4	72.8	71.6
77.5°	54.9	64.4	60.9	58.5	54.9
80°	43.0	50.1	46.5	44.2	40.6
82.5°	32.2	37.0	33.4	31.0	27.4
85°	20.3	25.1	22.7	19.1	15.5
87.5°	10.7	14.3	11.9	10.7	6.0
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	15.41	16.89	15.77	17.20	17.52	18.16	19.64	18.53	19.96	20.27
	3H	17.12	18.44	17.49	18.77	19.14	19.18	20.51	19.56	20.84	21.20
	4H	17.78	19.02	18.18	19.37	19.75	19.55	20.79	19.95	21.14	21.52
	6H	18.28	19.43	18.69	19.79	20.19	19.80	20.95	20.22	21.32	21.71
	8H	18.46	19.55	18.88	19.94	20.34	19.87	20.97	20.30	21.36	21.76
	12H	18.58	19.63	19.01	20.01	20.44	19.91	20.96	20.34	21.34	21.77
4H	2H	16.18	17.43	16.58	17.78	18.16	18.43	19.68	18.83	20.03	20.41
	3H	18.11	19.14	18.52	19.54	19.94	19.69	20.72	20.10	21.12	21.52
	4H	18.92	19.85	19.35	20.26	20.70	20.17	21.10	20.61	21.52	21.96
	6H	19.56	20.37	20.02	20.81	21.27	20.56	21.36	21.01	21.81	22.27
	8H	19.79	20.54	20.25	20.99	21.45	20.67	21.42	21.13	21.87	22.33
	12H	19.96	20.63	20.44	21.11	21.58	20.74	21.41	21.22	21.89	22.36
8H	4H	19.24	19.99	19.70	20.44	20.90	20.37	21.12	20.83	21.57	22.03
	6H	20.03	20.65	20.53	21.15	21.62	20.85	21.48	21.35	21.97	22.45
	8H	20.36	20.92	20.87	21.43	21.92	21.03	21.59	21.54	22.10	22.59
	12H	20.64	21.13	21.15	21.62	22.19	21.16	21.66	21.67	22.15	22.72
12H	4H	19.26	19.94	19.74	20.41	20.89	20.38	21.05	20.86	21.53	22.01
	6H	20.08	20.64	20.60	21.16	21.64	20.89	21.45	21.41	21.96	22.45
	8H	20.48	20.97	20.99	21.47	22.03	21.12	21.62	21.63	22.11	22.67