

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: P1059424

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059424
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: S123RDR-H1000D835-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK 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

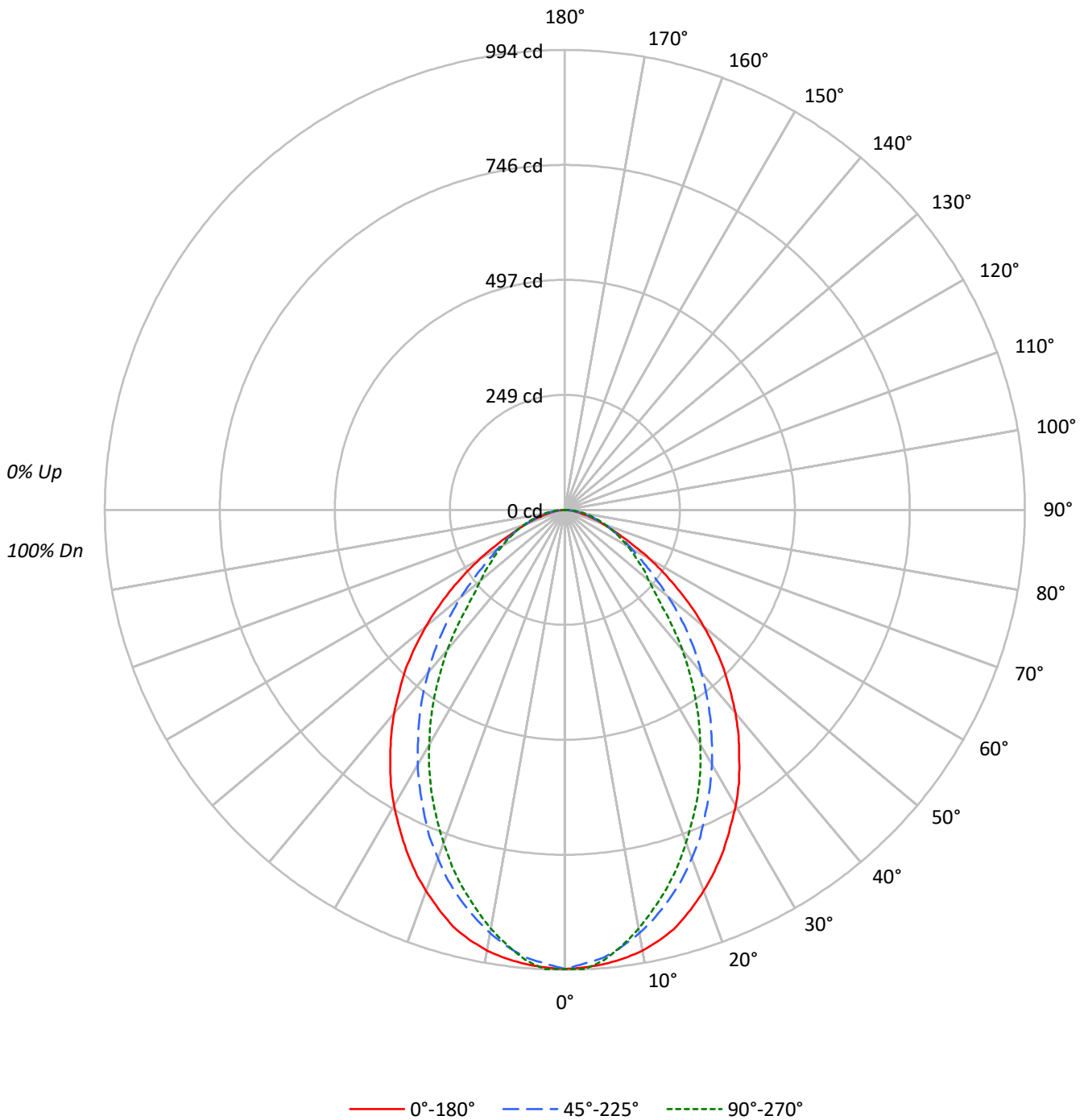
Lumens per Lamp: N/A
Luminaire Lumens: 1735.6 lumens
Efficiency: N/A
Efficacy: 55.6 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	11652	11652	11652
5°	11613	11444	11514
10°	11534	11078	10965
15°	11339	10599	10309
20°	10955	10016	9568
25°	10509	9334	8809
30°	10011	8619	7940
35°	9421	7848	7027
40°	8794	7039	6052
45°	8061	6219	4972
50°	7146	5338	4315
55°	6080	4469	3955
60°	4958	3894	3668
65°	3779	3445	3415
70°	2949	3073	3193
75°	2382	2758	2976
80°	1772	2259	2745
85°	970	1442	2412

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8061 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.1	5.3
10°-20°	247.8	14.3
20°-30°	336.9	19.4
30°-40°	349.3	20.1
40°-50°	294.6	17.0
50°-60°	209.1	12.0
60°-70°	127.8	7.4
70°-80°	63.6	3.7
80°-90°	14.4	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°	676.9	39.0
0°-40°	1026.1	59.1
0°-60°	1529.8	88.1
0°-90°	1735.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1735.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	992	992	992	992	992	
5°	985	985	971	977	977	93
15°	933	915	872	856	848	262
25°	811	775	720	694	680	373
35°	657	607	548	509	490	411
45°	485	434	374	323	299	373
55°	297	266	218	199	193	267
65°	136	131	124	124	123	139
75°	52	56	61	63	66	57
85°	7	8	11	16	18	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	992.3	992.3	992.3	992.3	992.3
2.5°	990.0	991.2	981.6	992.3	993.5
5°	985.2	985.2	970.9	976.8	976.8
7.5°	978.0	975.6	951.8	951.8	949.4
10°	967.3	960.1	929.1	923.2	919.6
12.5°	951.8	939.9	901.7	891.0	883.8
15°	932.7	914.8	871.9	856.4	848.0
17.5°	905.3	887.4	839.7	818.2	808.7
20°	876.7	850.4	801.5	780.0	765.7
22.5°	845.6	812.2	764.5	738.3	722.8
25°	811.1	775.3	720.4	694.2	679.9
27.5°	774.1	734.7	678.7	648.8	634.5
30°	738.3	693.0	635.7	602.3	585.6
32.5°	700.1	648.8	590.4	555.8	539.1
35°	657.2	607.1	547.5	509.3	490.2
37.5°	616.6	565.4	503.3	462.8	441.3
40°	573.7	522.4	459.2	417.5	394.8
42.5°	528.4	479.5	417.5	368.6	347.1
45°	485.4	434.2	374.5	323.2	299.4
47.5°	438.9	391.2	332.8	280.3	263.6
50°	391.2	347.1	292.2	244.5	236.2
52.5°	344.7	307.7	251.7	220.7	217.1
55°	297.0	266.0	218.3	199.2	193.2
57.5°	252.9	230.2	187.3	177.7	175.3
60°	211.1	192.0	165.8	159.8	156.2
62.5°	170.6	159.8	144.3	141.9	139.5
65°	136.0	131.2	124.0	124.0	122.9
67.5°	107.3	107.3	106.2	108.5	107.3
70°	85.9	87.1	89.5	91.8	93.0
72.5°	68.0	71.6	73.9	77.5	78.7
75°	52.5	56.1	60.8	63.2	65.6
77.5°	38.2	41.7	46.5	50.1	52.5
80°	26.2	28.6	33.4	38.2	40.6
82.5°	16.7	17.9	21.5	26.2	28.6
85°	7.2	8.3	10.7	15.5	17.9
87.5°	0.0	0.0	1.2	4.8	8.3
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	17.34	18.79	17.71	19.10	19.42	15.44	16.89	15.80	17.20	17.51
	3H	18.24	19.53	18.62	19.86	20.22	17.01	18.30	17.39	18.63	19.00
	4H	18.52	19.73	18.92	20.08	20.46	17.60	18.82	18.01	19.17	19.55
	6H	18.67	19.79	19.08	20.16	20.55	18.06	19.17	18.47	19.54	19.93
	8H	18.69	19.76	19.12	20.15	20.55	18.21	19.27	18.63	19.66	20.06
	12H	18.69	19.70	19.12	20.09	20.51	18.30	19.32	18.73	19.70	20.13
4H	2H	17.58	18.80	17.98	19.15	19.53	15.98	17.19	16.38	17.54	17.92
	3H	18.70	19.70	19.11	20.10	20.50	17.75	18.75	18.16	19.15	19.55
	4H	19.09	19.99	19.52	20.40	20.84	18.46	19.36	18.90	19.78	20.22
	6H	19.33	20.11	19.79	20.55	21.01	19.04	19.81	19.49	20.26	20.72
	8H	19.37	20.10	19.84	20.54	21.01	19.23	19.95	19.69	20.40	20.87
	12H	19.38	20.03	19.86	20.51	20.98	19.37	20.01	19.85	20.49	20.96
8H	4H	19.25	19.97	19.71	20.42	20.89	18.67	19.40	19.14	19.84	20.31
	6H	19.56	20.16	20.06	20.65	21.13	19.35	19.95	19.85	20.44	20.92
	8H	19.63	20.17	20.15	20.68	21.17	19.61	20.14	20.12	20.65	21.14
	12H	19.67	20.14	20.18	20.64	21.20	19.81	20.29	20.33	20.78	21.35
12H	4H	19.25	19.90	19.73	20.38	20.85	18.67	19.32	19.15	19.80	20.27
	6H	19.57	20.11	20.09	20.62	21.11	19.36	19.90	19.87	20.41	20.90
	8H	19.69	20.16	20.20	20.65	21.22	19.66	20.13	20.17	20.63	21.20