

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: P1059426

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059426
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
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-W
Description: DEFINE 3 WHITE 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

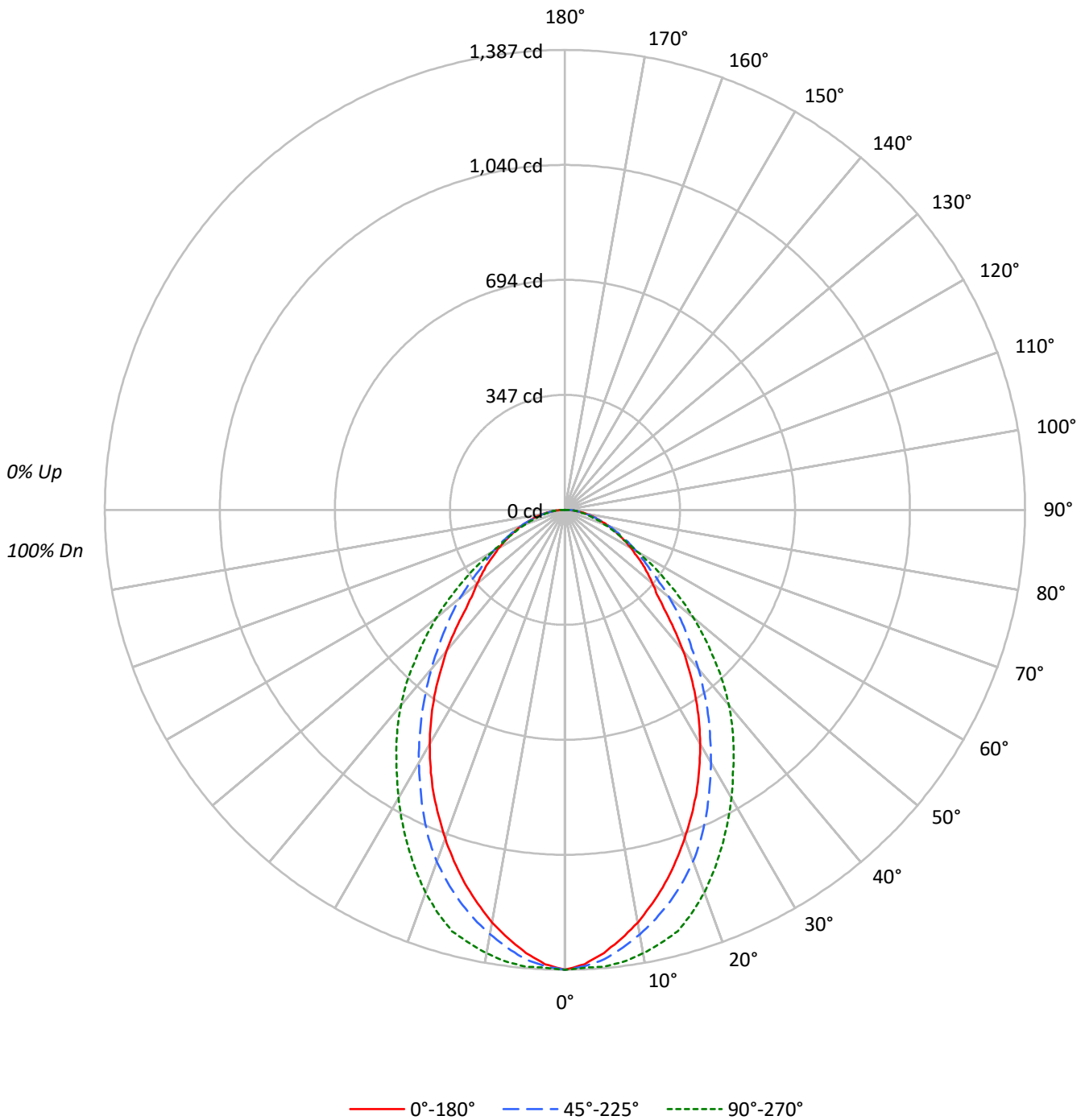
Lumens per Lamp: N/A
Luminaire Lumens: 2437.0 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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				100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16286	16286	16286
5°	15813	16038	16291
10°	15071	15498	16195
15°	14176	14872	15990
20°	13185	14109	15348
25°	12170	13082	14505
30°	11053	11943	13611
35°	9838	10778	12712
40°	8489	9605	11782
45°	7016	8502	10565
50°	6301	7501	9224
55°	5841	6402	7648
60°	5383	5831	5857
65°	5007	5274	4907
70°	4714	4793	4302
75°	4442	4278	3788
80°	4199	3875	3550
85°	4015	4338	4015

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10565 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.5	5.3
10°-20°	346.1	14.2
20°-30°	468.2	19.2
30°-40°	481.1	19.7
40°-50°	404.0	16.6
50°-60°	289.7	11.9
60°-70°	184.4	7.6
70°-80°	101.3	4.2
80°-90°	33.8	1.4
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°	942.7	38.7
0°-40°	1423.8	58.4
0°-60°	2117.5	86.9
0°-90°	2437.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2437.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1387	1387	1387	1387	1387	
5°	1342	1365	1361	1370	1382	126
15°	1166	1198	1223	1276	1315	327
25°	939	975	1010	1065	1120	431
35°	686	723	752	819	887	427
45°	422	460	512	586	636	334
55°	285	291	313	354	374	255
65°	180	191	190	179	177	180
75°	98	107	94	87	84	104
85°	30	31	32	33	30	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1386.9	1386.9	1386.9	1386.9	1386.9
2.5°	1371.4	1390.5	1377.3	1378.5	1382.1
5°	1341.5	1365.4	1360.6	1370.2	1382.1
7.5°	1304.5	1330.8	1332.0	1354.7	1373.8
10°	1264.0	1291.4	1299.8	1334.4	1358.2
12.5°	1216.2	1246.1	1264.0	1306.9	1338.0
15°	1166.1	1198.3	1223.4	1275.9	1315.3
17.5°	1111.2	1145.8	1178.0	1234.1	1274.7
20°	1055.1	1092.1	1129.1	1181.6	1228.2
22.5°	996.6	1034.8	1073.0	1124.3	1175.6
25°	939.3	975.1	1009.7	1064.6	1119.5
27.5°	877.3	914.3	944.1	1005.0	1062.2
30°	815.2	852.2	880.8	944.1	1003.8
32.5°	750.7	788.9	815.2	880.8	942.9
35°	686.3	723.3	751.9	818.8	886.8
37.5°	618.3	658.8	687.5	762.7	829.5
40°	553.8	592.0	626.6	705.4	768.6
42.5°	487.0	526.4	565.7	646.9	705.4
45°	422.5	459.5	512.0	586.0	636.2
47.5°	376.0	399.8	460.7	522.8	570.5
50°	344.9	354.5	410.6	465.5	504.9
52.5°	313.9	321.1	359.3	409.4	439.2
55°	285.3	291.2	312.7	354.5	373.6
57.5°	254.2	260.2	278.1	302.0	312.7
60°	229.2	233.9	248.3	251.8	249.4
62.5°	204.1	211.3	218.4	210.1	206.5
65°	180.2	191.0	189.8	179.0	176.6
67.5°	158.7	169.5	163.5	152.8	149.2
70°	137.3	148.0	139.6	128.9	125.3
72.5°	117.0	128.9	115.8	106.2	103.8
75°	97.9	107.4	94.3	87.1	83.5
77.5°	80.0	87.1	75.2	69.2	66.8
80°	62.1	66.8	57.3	53.7	52.5
82.5°	45.4	47.7	41.8	44.2	43.0
85°	29.8	31.0	32.2	33.4	29.8
87.5°	14.3	20.3	20.3	19.1	15.5
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	16.88	18.34	17.24	18.66	18.97	17.95	19.41	18.31	19.73	20.04
	3H	18.58	19.89	18.95	20.22	20.58	19.03	20.34	19.41	20.67	21.04
	4H	19.23	20.46	19.63	20.81	21.19	19.43	20.66	19.84	21.01	21.39
	6H	19.73	20.87	20.15	21.24	21.63	19.74	20.88	20.16	21.25	21.64
	8H	19.91	20.99	20.33	21.38	21.78	19.88	20.96	20.31	21.35	21.75
	12H	20.03	21.06	20.46	21.45	21.88	20.00	21.03	20.43	21.41	21.84
4H	2H	17.48	18.71	17.88	19.06	19.44	18.35	19.58	18.75	19.93	20.31
	3H	19.41	20.43	19.82	20.83	21.23	19.67	20.69	20.08	21.09	21.49
	4H	20.22	21.14	20.65	21.55	21.99	20.19	21.11	20.62	21.52	21.96
	6H	20.87	21.66	21.33	22.11	22.57	20.62	21.42	21.08	21.86	22.32
	8H	21.09	21.83	21.55	22.28	22.75	20.81	21.56	21.28	22.00	22.47
	12H	21.26	21.93	21.75	22.41	22.88	20.99	21.66	21.48	22.14	22.61
8H	4H	20.46	21.20	20.92	21.65	22.11	20.43	21.18	20.90	21.62	22.09
	6H	21.25	21.86	21.74	22.35	22.83	20.98	21.60	21.48	22.09	22.57
	8H	21.56	22.11	22.07	22.62	23.11	21.26	21.81	21.78	22.32	22.81
	12H	21.83	22.32	22.34	22.81	23.37	21.55	22.04	22.06	22.53	23.10
12H	4H	20.47	21.13	20.95	21.61	22.08	20.46	21.13	20.94	21.60	22.08
	6H	21.28	21.83	21.79	22.34	22.83	21.03	21.59	21.55	22.10	22.59
	8H	21.65	22.14	22.17	22.64	23.20	21.38	21.86	21.89	22.36	22.92