

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: P1059750

Luminaire Tested: S123RDR-H775D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059750
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-H775D835-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

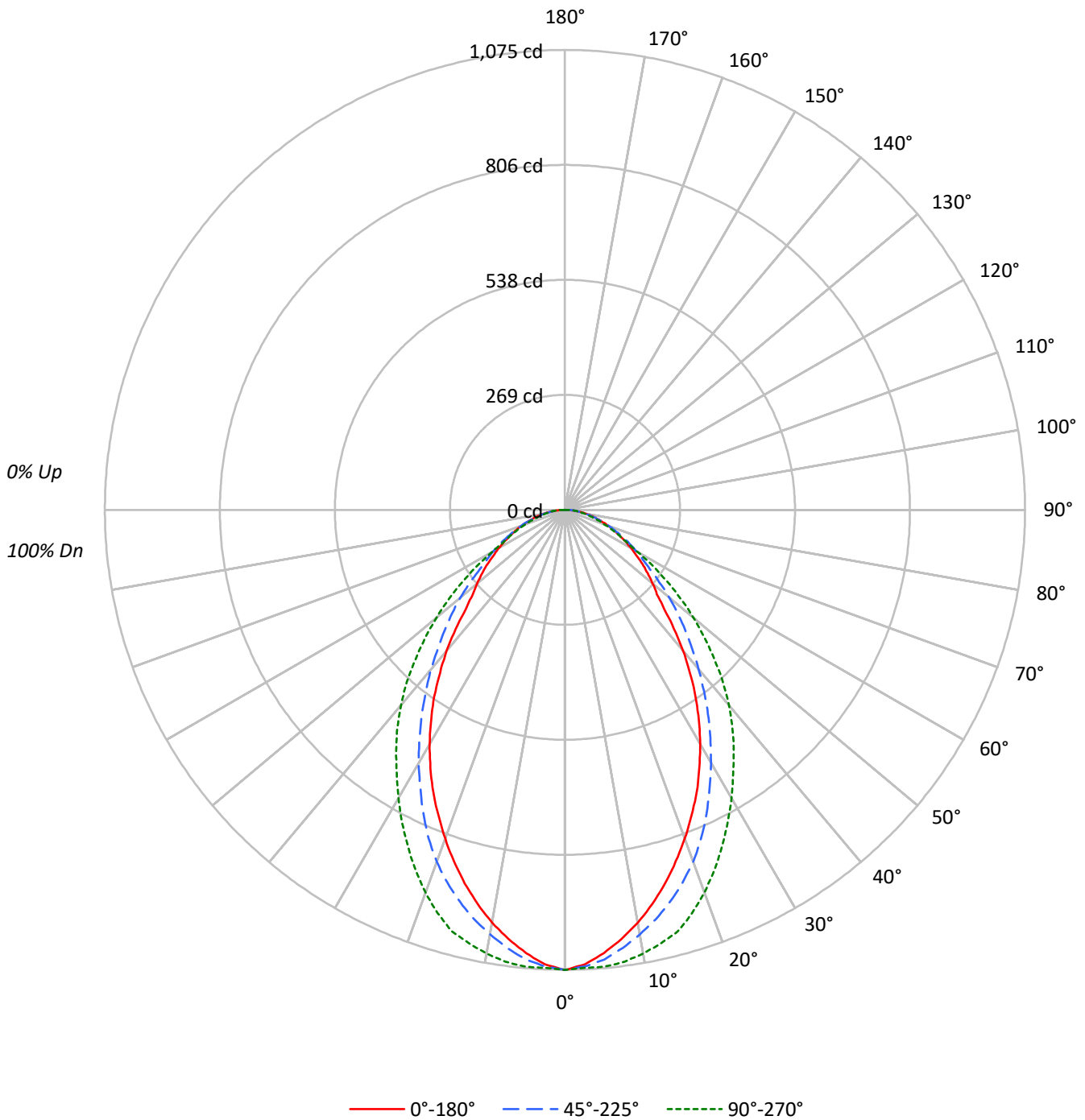
Lumens per Lamp: N/A
Luminaire Lumens: 1889.7 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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				
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12628	12628	12628
5°	12261	12437	12632
10°	11686	12018	12558
15°	10992	11532	12399
20°	10223	10940	11900
25°	9437	10145	11247
30°	8571	9261	10553
35°	7629	8359	9857
40°	6582	7448	9136
45°	5440	6593	8192
50°	4887	5817	7152
55°	4528	4965	5931
60°	4173	4521	4542
65°	3882	4090	3807
70°	3653	3718	3337
75°	3444	3316	2940
80°	3253	3002	2752
85°	3112	3368	3112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8192 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.6	5.3
10°-20°	268.3	14.2
20°-30°	363.0	19.2
30°-40°	373.0	19.7
40°-50°	313.3	16.6
50°-60°	224.6	11.9
60°-70°	143.0	7.6
70°-80°	78.6	4.2
80°-90°	26.2	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°	731.0	38.7
0°-40°	1104.0	58.4
0°-60°	1641.9	86.9
0°-90°	1889.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1889.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1075	1075	1075	1075	1075	
5°	1040	1059	1055	1062	1072	97
15°	904	929	949	989	1020	253
25°	728	756	783	826	868	334
35°	532	561	583	635	688	331
45°	328	356	397	454	493	259
55°	221	226	242	275	290	198
65°	140	148	147	139	137	139
75°	76	83	73	68	65	81
85°	23	24	25	26	23	25
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1075.4	1075.4	1075.4	1075.4	1075.4
2.5°	1063.4	1078.2	1068.0	1068.9	1071.7
5°	1040.2	1058.8	1055.1	1062.5	1071.7
7.5°	1011.6	1031.9	1032.8	1050.4	1065.2
10°	980.1	1001.4	1007.9	1034.7	1053.2
12.5°	943.1	966.2	980.1	1013.4	1037.5
15°	904.2	929.2	948.6	989.3	1019.9
17.5°	861.6	888.5	913.5	957.0	988.4
20°	818.1	846.8	875.5	916.2	952.3
22.5°	772.8	802.4	832.0	871.8	911.6
25°	728.4	756.1	783.0	825.5	868.1
27.5°	680.2	708.9	732.1	779.3	823.7
30°	632.1	660.8	683.0	732.1	778.3
32.5°	582.1	611.7	632.1	683.0	731.1
35°	532.2	560.8	583.1	634.9	687.6
37.5°	479.4	510.9	533.1	591.4	643.2
40°	429.4	459.0	485.9	547.0	596.0
42.5°	377.6	408.1	438.7	501.6	547.0
45°	327.6	356.3	397.0	454.4	493.3
47.5°	291.5	310.0	357.2	405.4	442.4
50°	267.5	274.9	318.4	360.9	391.5
52.5°	243.4	249.0	278.6	317.4	340.6
55°	221.2	225.8	242.5	274.9	289.7
57.5°	197.1	201.8	215.6	234.1	242.5
60°	177.7	181.4	192.5	195.3	193.4
62.5°	158.3	163.8	169.4	162.9	160.1
65°	139.7	148.1	147.2	138.8	137.0
67.5°	123.1	131.4	126.8	118.5	115.7
70°	106.4	114.8	108.3	100.0	97.2
72.5°	90.7	100.0	89.8	82.4	80.5
75°	75.9	83.3	73.1	67.6	64.8
77.5°	62.0	67.6	58.3	53.7	51.8
80°	48.1	51.8	44.4	41.6	40.7
82.5°	35.2	37.0	32.4	34.2	33.3
85°	23.1	24.1	25.0	25.9	23.1
87.5°	11.1	15.7	15.7	14.8	12.0
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	16.00	17.46	16.36	17.77	18.09	17.06	18.53	17.43	18.84	19.16
	3H	17.69	19.00	18.07	19.33	19.69	18.15	19.46	18.53	19.79	20.15
	4H	18.35	19.58	18.75	19.92	20.30	18.55	19.78	18.95	20.13	20.51
	6H	18.85	19.98	19.26	20.35	20.74	18.86	19.99	19.27	20.36	20.75
	8H	19.02	20.10	19.45	20.49	20.89	19.00	20.07	19.42	20.46	20.87
	12H	19.15	20.18	19.58	20.56	20.99	19.12	20.15	19.55	20.53	20.96
4H	2H	16.60	17.83	17.00	18.18	18.55	17.47	18.70	17.87	19.05	19.42
	3H	18.53	19.54	18.94	19.94	20.35	18.79	19.80	19.20	20.21	20.61
	4H	19.34	20.25	19.77	20.67	21.11	19.31	20.22	19.74	20.64	21.08
	6H	19.98	20.78	20.44	21.22	21.69	19.74	20.53	20.20	20.98	21.44
	8H	20.21	20.95	20.67	21.40	21.86	19.93	20.67	20.39	21.12	21.59
	12H	20.38	21.04	20.86	21.52	21.99	20.11	20.77	20.59	21.25	21.73
8H	4H	19.57	20.32	20.04	20.76	21.23	19.55	20.30	20.02	20.74	21.21
	6H	20.36	20.98	20.86	21.47	21.95	20.10	20.71	20.60	21.21	21.69
	8H	20.67	21.23	21.19	21.74	22.23	20.38	20.93	20.89	21.44	21.93
	12H	20.94	21.43	21.45	21.93	22.49	20.67	21.16	21.18	21.65	22.21
12H	4H	19.59	20.25	20.07	20.73	21.20	19.58	20.24	20.06	20.72	21.19
	6H	20.40	20.95	20.91	21.46	21.95	20.15	20.70	20.67	21.22	21.70
	8H	20.77	21.26	21.28	21.75	22.32	20.49	20.98	21.00	21.47	22.04