

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



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056618

Luminaire Tested: S125R3DR-H850D930-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056618
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H850D930-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

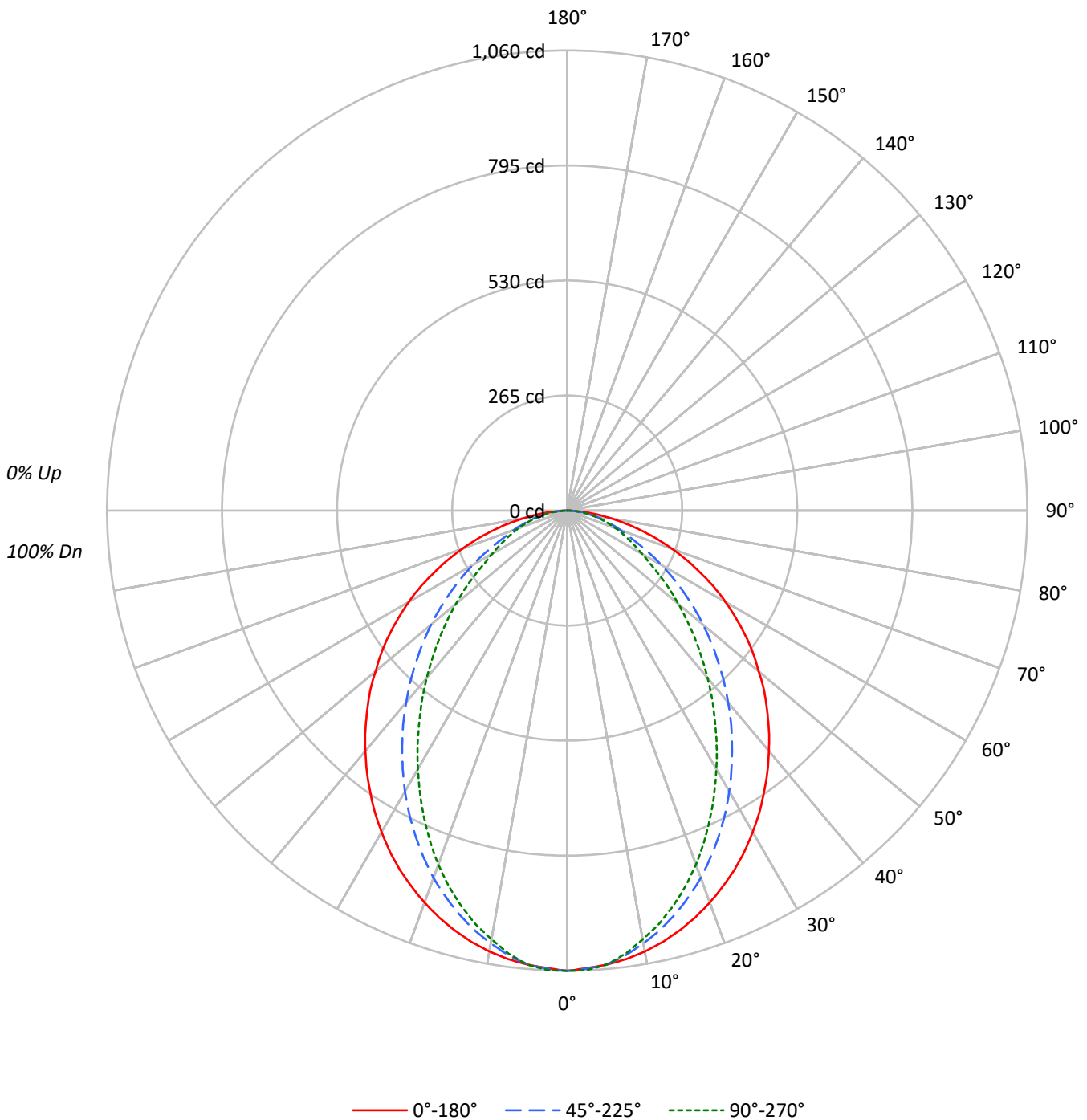
Lumens per Lamp: N/A
Luminaire Lumens: 2247.3 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
Input Voltage (V): 120
Input Current (A_{in}): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7496	7496	7496
5°	7451	7446	7451
10°	7402	7266	7198
15°	7327	7044	6899
20°	7228	6771	6528
25°	7119	6448	6084
30°	6979	6097	5614
35°	6827	5717	5124
40°	6674	5326	4641
45°	6511	4918	4160
50°	6338	4498	3682
55°	6179	4038	3201
60°	5961	3550	2814
65°	5666	3011	2615
70°	5320	2693	2447
75°	4810	2480	2308
80°	4177	2251	2154
85°	3269	1987	1987

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6511 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.2	4.4
10°-20°	272.4	12.1
20°-30°	384.8	17.1
30°-40°	423.6	18.8
40°-50°	395.1	17.6
50°-60°	315.4	14.0
60°-70°	212.3	9.4
70°-80°	113.1	5.0
80°-90°	31.4	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°	756.4	33.7
0°-40°	1180.0	52.5
0°-60°	1890.6	84.1
0°-90°	2247.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2247.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1060	1060	1060	1060	1060	
5°	1050	1059	1049	1046	1050	100
15°	1001	996	962	946	943	282
25°	913	885	827	790	780	420
35°	791	744	662	610	594	495
45°	651	590	492	432	416	503
55°	501	426	328	276	260	448
65°	339	264	180	160	156	336
75°	176	117	91	85	84	188
85°	40	28	24	25	24	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1060.3	1060.3	1060.3	1060.3	1060.3
2.5°	1054.8	1063.5	1056.4	1057.9	1059.5
5°	1050.0	1058.7	1049.3	1046.1	1050.0
7.5°	1042.2	1049.3	1033.5	1026.4	1029.5
10°	1031.1	1035.8	1012.2	1002.7	1002.7
12.5°	1017.7	1017.7	989.3	975.8	975.8
15°	1001.1	995.6	962.4	945.8	942.7
17.5°	982.2	971.9	932.4	911.1	907.1
20°	960.8	944.3	900.0	872.4	867.7
22.5°	937.1	915.8	864.5	830.6	825.0
25°	912.7	885.0	826.6	790.3	780.0
27.5°	885.0	851.9	787.9	746.9	734.2
30°	855.0	817.1	746.9	701.1	687.7
32.5°	824.2	781.6	705.0	656.1	641.1
35°	791.1	744.5	662.4	610.3	593.7
37.5°	757.9	707.4	620.6	566.1	548.7
40°	723.2	667.9	577.1	521.1	502.9
42.5°	688.5	629.2	534.5	477.7	458.7
45°	651.3	589.8	491.9	431.9	416.1
47.5°	615.8	549.5	450.0	391.6	374.2
50°	576.3	507.7	409.0	350.5	334.8
52.5°	540.0	466.6	367.9	313.4	296.9
55°	501.3	425.5	327.6	275.5	259.7
57.5°	461.1	384.5	289.0	240.0	225.0
60°	421.6	343.4	251.1	206.1	199.0
62.5°	381.3	304.8	215.5	180.8	176.1
65°	338.7	264.5	180.0	159.5	156.3
67.5°	298.4	225.8	151.6	139.7	136.6
70°	257.4	187.1	130.3	120.0	118.4
72.5°	217.1	150.0	109.7	102.6	101.1
75°	176.1	116.8	90.8	85.3	84.5
77.5°	138.2	87.6	71.8	69.5	67.9
80°	102.6	65.5	55.3	53.7	52.9
82.5°	70.3	45.0	39.5	39.5	37.9
85°	40.3	27.6	24.5	25.3	24.5
87.5°	15.0	11.8	11.1	11.8	11.8
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	18.29	19.83	18.65	20.14	20.45	14.67	16.21	15.03	16.52	16.84
	3H	20.07	21.46	20.45	21.78	22.14	16.14	17.53	16.52	17.86	18.22
	4H	20.73	22.02	21.12	22.37	22.75	16.74	18.03	17.13	18.38	18.76
	6H	21.20	22.40	21.61	22.77	23.16	17.20	18.40	17.61	18.76	19.16
	8H	21.36	22.50	21.78	22.89	23.29	17.36	18.50	17.78	18.89	19.29
	12H	21.45	22.55	21.88	22.93	23.36	17.47	18.57	17.90	18.95	19.38
4H	2H	18.42	19.72	18.82	20.07	20.45	15.35	16.64	15.75	16.99	17.37
	3H	20.39	21.47	20.80	21.87	22.27	17.02	18.10	17.43	18.50	18.90
	4H	21.14	22.11	21.57	22.53	22.96	17.73	18.70	18.16	19.11	19.55
	6H	21.73	22.58	22.19	23.02	23.48	18.31	19.16	18.77	19.60	20.06
	8H	21.94	22.73	22.40	23.17	23.64	18.52	19.31	18.98	19.76	20.22
	12H	22.08	22.79	22.57	23.27	23.74	18.68	19.39	19.16	19.87	20.34
8H	4H	21.20	21.99	21.66	22.44	22.90	18.09	18.88	18.55	19.33	19.79
	6H	21.86	22.52	22.36	23.01	23.48	18.79	19.45	19.29	19.94	20.42
	8H	22.11	22.70	22.63	23.21	23.70	19.08	19.67	19.59	20.17	20.66
	12H	22.32	22.84	22.83	23.33	23.90	19.32	19.84	19.83	20.33	20.90
12H	4H	21.19	21.90	21.67	22.38	22.85	18.14	18.85	18.62	19.32	19.80
	6H	21.85	22.44	22.37	22.95	23.44	18.86	19.45	19.38	19.96	20.45
	8H	22.15	22.67	22.66	23.16	23.72	19.21	19.73	19.72	20.22	20.78