

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: P1056486

Luminaire Tested: S125R3DR-S850D935-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056486
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-S850D935-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

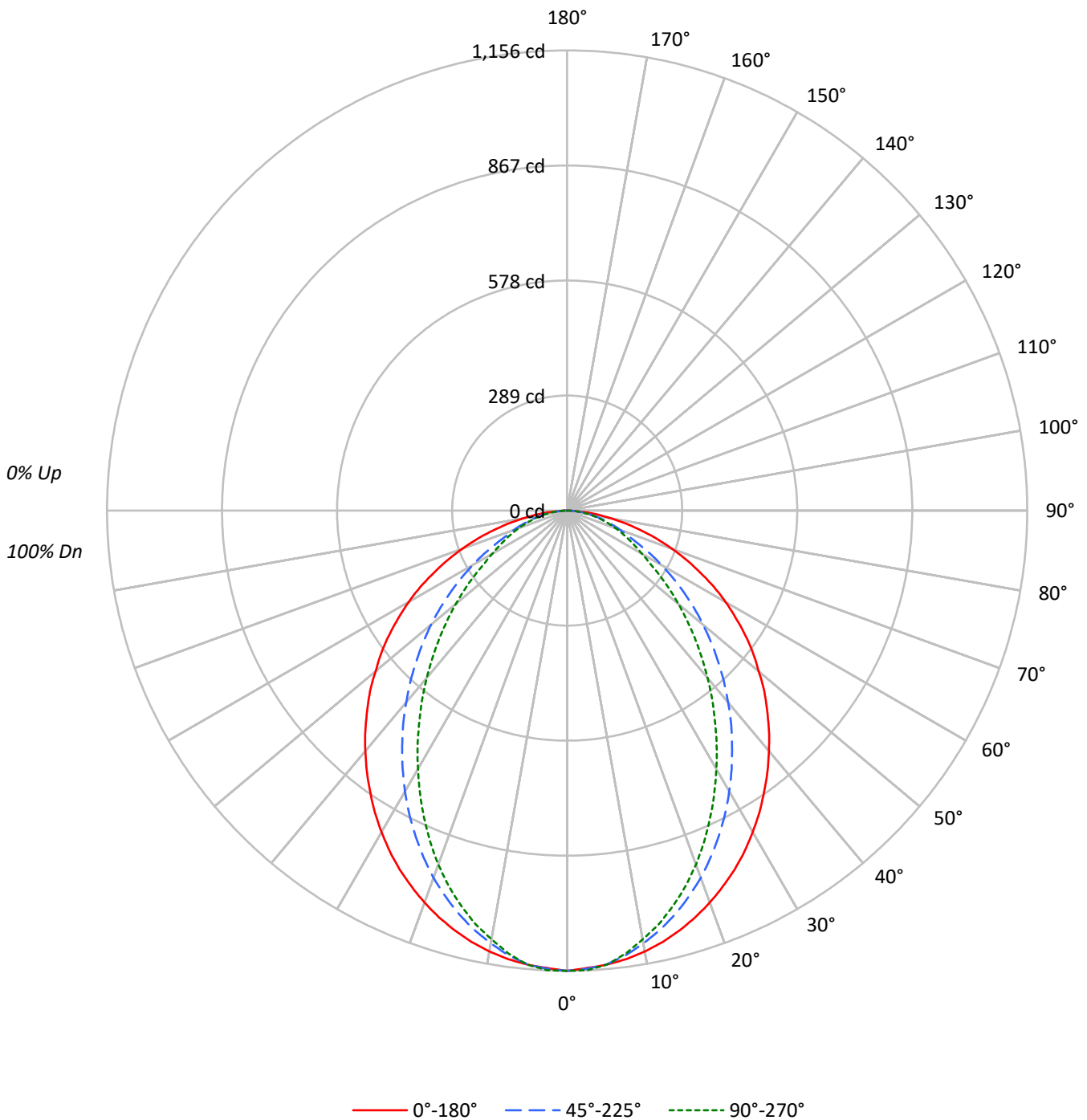
Lumens per Lamp: N/A
Luminaire Lumens: 2450.8 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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°	8174	8174	8174
5°	8126	8120	8126
10°	8072	7924	7850
15°	7990	7682	7524
20°	7883	7384	7118
25°	7763	7032	6636
30°	7612	6649	6121
35°	7445	6234	5588
40°	7278	5808	5062
45°	7101	5363	4536
50°	6912	4905	4015
55°	6738	4404	3492
60°	6501	3871	3068
65°	6179	3284	2852
70°	5802	2937	2668
75°	5244	2704	2516
80°	4556	2455	2349
85°	3561	2166	2166

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7101 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.2	4.4
10°-20°	297.1	12.1
20°-30°	419.6	17.1
30°-40°	462.0	18.8
40°-50°	430.9	17.6
50°-60°	344.0	14.0
60°-70°	231.5	9.4
70°-80°	123.3	5.0
80°-90°	34.3	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°	824.9	33.7
0°-40°	1286.8	52.5
0°-60°	2061.7	84.1
0°-90°	2450.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2450.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1156	1156	1156	1156	1156	
5°	1145	1155	1144	1141	1145	109
15°	1092	1086	1050	1032	1028	308
25°	995	965	902	862	851	458
35°	863	812	722	666	648	540
45°	710	643	536	471	454	548
55°	547	464	357	300	283	488
65°	369	288	196	174	170	366
75°	192	127	99	93	92	205
85°	44	30	27	28	27	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1156.3	1156.3	1156.3	1156.3	1156.3
2.5°	1150.3	1159.8	1152.0	1153.7	1155.5
5°	1145.1	1154.6	1144.3	1140.8	1145.1
7.5°	1136.5	1144.3	1127.0	1119.3	1122.7
10°	1124.5	1129.6	1103.8	1093.5	1093.5
12.5°	1109.8	1109.8	1078.8	1064.2	1064.2
15°	1091.7	1085.7	1049.6	1031.5	1028.0
17.5°	1071.1	1059.9	1016.8	993.6	989.3
20°	1047.8	1029.8	981.5	951.4	946.2
22.5°	1022.0	998.8	942.8	905.8	899.7
25°	995.3	965.2	901.5	861.9	850.7
27.5°	965.2	929.0	859.3	814.5	800.7
30°	932.5	891.1	814.5	764.6	749.9
32.5°	898.9	852.4	768.9	715.5	699.1
35°	862.7	811.9	722.4	665.6	647.5
37.5°	826.6	771.5	676.7	617.3	598.4
40°	788.7	728.4	629.4	568.3	548.5
42.5°	750.8	686.2	582.9	520.9	500.2
45°	710.3	643.2	536.4	471.0	453.7
47.5°	671.6	599.3	490.8	427.1	408.1
50°	628.5	553.6	446.0	382.3	365.1
52.5°	588.9	508.8	401.2	341.8	323.7
55°	546.7	464.1	357.3	300.5	283.3
57.5°	502.8	419.3	315.1	261.7	245.4
60°	459.8	374.5	273.8	224.7	217.0
62.5°	415.9	332.3	235.1	197.2	192.0
65°	369.4	288.4	196.3	173.9	170.5
67.5°	325.5	246.2	165.3	152.4	149.0
70°	280.7	204.1	142.1	130.9	129.1
72.5°	236.8	163.6	119.7	111.9	110.2
75°	192.0	127.4	99.0	93.0	92.1
77.5°	150.7	95.6	78.4	75.8	74.0
80°	111.9	71.5	60.3	58.5	57.7
82.5°	76.6	49.1	43.0	43.0	41.3
85°	43.9	30.1	26.7	27.6	26.7
87.5°	16.4	12.9	12.1	12.9	12.9
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	18.59	20.13	18.95	20.44	20.76	14.97	16.51	15.33	16.82	17.14
	3H	20.37	21.76	20.75	22.08	22.45	16.45	17.83	16.82	18.16	18.52
	4H	21.03	22.33	21.43	22.67	23.05	17.04	18.33	17.44	18.68	19.06
	6H	21.50	22.70	21.92	23.07	23.46	17.50	18.70	17.91	19.07	19.46
	8H	21.66	22.80	22.08	23.19	23.59	17.66	18.80	18.08	19.19	19.59
	12H	21.75	22.85	22.18	23.23	23.66	17.77	18.87	18.20	19.25	19.68
4H	2H	18.72	20.02	19.12	20.37	20.75	15.65	16.95	16.05	17.29	17.67
	3H	20.69	21.77	21.10	22.17	22.57	17.32	18.40	17.73	18.80	19.20
	4H	21.44	22.41	21.87	22.83	23.26	18.03	19.00	18.46	19.42	19.85
	6H	22.03	22.88	22.49	23.32	23.78	18.61	19.46	19.07	19.90	20.36
	8H	22.24	23.03	22.70	23.48	23.94	18.82	19.61	19.28	20.06	20.52
	12H	22.39	23.10	22.87	23.57	24.04	18.98	19.69	19.46	20.17	20.64
8H	4H	21.50	22.29	21.96	22.74	23.20	18.39	19.18	18.85	19.63	20.09
	6H	22.16	22.82	22.66	23.31	23.78	19.09	19.75	19.59	20.24	20.72
	8H	22.41	23.00	22.93	23.51	24.00	19.38	19.97	19.89	20.47	20.96
	12H	22.62	23.14	23.13	23.64	24.20	19.62	20.14	20.13	20.63	21.20
12H	4H	21.49	22.20	21.98	22.68	23.15	18.44	19.15	18.92	19.63	20.10
	6H	22.16	22.75	22.67	23.25	23.74	19.16	19.75	19.68	20.26	20.75
	8H	22.45	22.97	22.96	23.46	24.03	19.51	20.03	20.02	20.52	21.08