

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: P1056557

Luminaire Tested: S125R3DR-H375D850-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056557
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H375D850-X4F0-XX-UDD-FLL-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

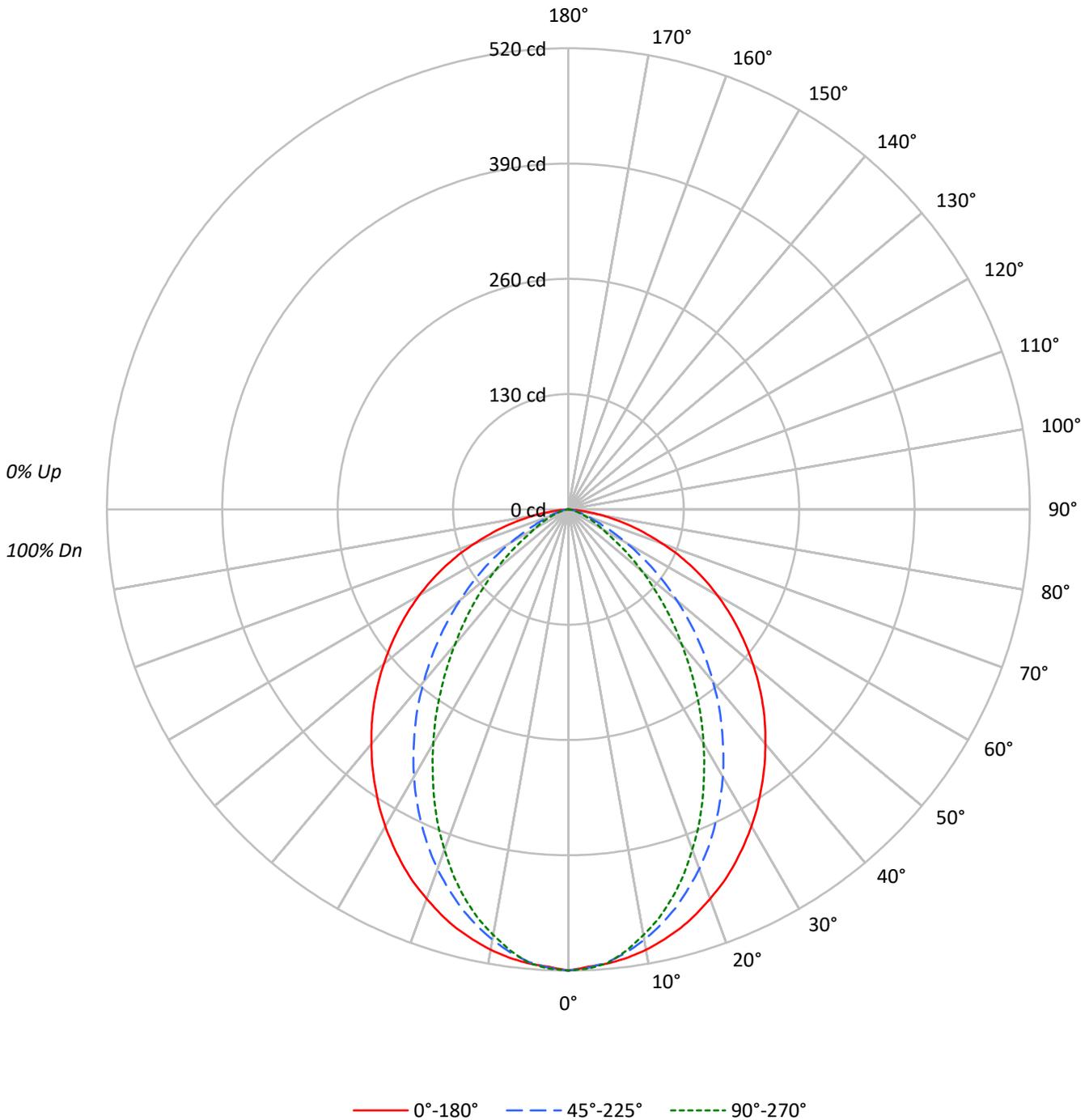
Lumens per Lamp: N/A
Luminaire Lumens: 939.9 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3676	3676	3676
5°	3646	3635	3643
10°	3619	3536	3498
15°	3577	3408	3316
20°	3514	3245	3072
25°	3448	3054	2795
30°	3369	2842	2488
35°	3279	2601	2165
40°	3186	2338	1831
45°	3095	2060	1517
50°	2987	1753	1191
55°	2873	1425	866
60°	2744	1062	619
65°	2578	701	483
70°	2329	488	339
75°	2027	317	262
80°	1588	236	216
85°	819	195	154

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3095 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	5.2
10°-20°	131.7	14.0
20°-30°	182.1	19.4
30°-40°	192.9	20.5
40°-50°	168.4	17.9
50°-60°	119.8	12.7
60°-70°	66.6	7.1
70°-80°	25.6	2.7
80°-90°	4.4	0.5
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°	362.2	38.5
0°-40°	555.1	59.1
0°-60°	843.3	89.7
0°-90°	939.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	939.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	520	520	520	520	520	
5°	514	518	512	511	513	49
15°	489	484	466	456	453	138
25°	442	427	392	367	358	203
35°	380	354	301	265	251	238
45°	310	272	206	165	152	239
55°	233	187	116	80	70	208
65°	154	101	42	31	29	152
75°	74	29	12	10	10	79
85°	10	3	2	2	2	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	520.0	520.0	520.0	520.0	520.0
2.5°	516.2	521.5	517.2	517.6	518.1
5°	513.8	517.6	512.3	510.9	513.3
7.5°	509.9	512.8	503.7	500.3	501.7
10°	504.2	505.1	492.6	487.8	487.3
12.5°	496.9	495.5	480.1	472.4	471.9
15°	488.7	484.4	465.6	455.5	453.1
17.5°	478.6	471.9	448.8	435.8	431.9
20°	467.1	457.9	431.4	414.6	408.3
22.5°	455.5	443.0	412.2	391.0	384.3
25°	442.0	427.1	391.5	367.4	358.3
27.5°	427.6	409.8	370.3	342.4	331.3
30°	412.7	392.0	348.1	316.8	304.8
32.5°	396.8	373.2	325.0	290.8	278.3
35°	379.9	353.9	301.4	264.8	250.9
37.5°	363.1	334.2	278.3	239.3	224.9
40°	345.2	314.0	253.3	213.3	198.4
42.5°	327.9	293.2	229.7	188.8	175.3
45°	309.6	272.5	206.1	164.7	151.7
47.5°	290.8	250.9	182.5	142.0	129.0
50°	271.6	229.7	159.4	119.9	108.3
52.5°	252.3	208.5	137.7	98.7	88.6
55°	233.1	186.8	115.6	79.9	70.3
57.5°	213.8	165.6	94.9	62.6	53.9
60°	194.1	144.0	75.1	46.2	43.8
62.5°	174.3	122.8	58.3	38.0	36.1
65°	154.1	101.1	41.9	30.8	28.9
67.5°	133.9	81.4	30.3	23.6	22.1
70°	112.7	62.1	23.6	17.8	16.4
72.5°	92.5	44.8	16.9	13.0	12.5
75°	74.2	28.9	11.6	9.6	9.6
77.5°	55.9	17.3	8.2	7.2	7.2
80°	39.0	10.1	5.8	5.3	5.3
82.5°	23.6	5.3	3.9	3.4	3.4
85°	10.1	2.9	2.4	1.9	1.9
87.5°	1.9	1.0	1.0	1.0	1.0
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	15.68	17.13	16.05	17.44	17.76	8.32	9.77	8.69	10.08	10.39
	3H	17.24	18.53	17.62	18.86	19.22	8.89	10.17	9.26	10.50	10.86
	4H	17.77	18.97	18.17	19.32	19.70	9.01	10.21	9.41	10.56	10.94
	6H	18.10	19.21	18.52	19.58	19.97	9.07	10.18	9.49	10.55	10.94
	8H	18.19	19.24	18.61	19.63	20.03	9.08	10.13	9.51	10.52	10.92
	12H	18.21	19.22	18.64	19.60	20.03	9.07	10.07	9.50	10.46	10.89
4H	2H	15.58	16.78	15.98	17.13	17.51	8.89	10.09	9.29	10.44	10.82
	3H	17.25	18.23	17.66	18.64	19.04	9.56	10.55	9.97	10.95	11.35
	4H	17.80	18.68	18.23	19.10	19.54	9.72	10.60	10.15	11.02	11.46
	6H	18.19	18.95	18.65	19.40	19.86	9.83	10.59	10.29	11.04	11.50
	8H	18.29	19.01	18.76	19.45	19.92	9.84	10.55	10.31	11.00	11.47
	12H	18.34	18.98	18.83	19.46	19.93	9.84	10.47	10.33	10.95	11.43
8H	4H	17.70	18.41	18.17	18.86	19.33	9.99	10.70	10.45	11.14	11.61
	6H	18.09	18.67	18.59	19.17	19.65	10.12	10.70	10.62	11.20	11.68
	8H	18.20	18.72	18.71	19.23	19.72	10.15	10.67	10.67	11.19	11.68
	12H	18.26	18.72	18.77	19.22	19.78	10.17	10.63	10.68	11.13	11.70
12H	4H	17.66	18.30	18.15	18.78	19.25	10.00	10.63	10.49	11.12	11.59
	6H	18.03	18.56	18.55	19.07	19.56	10.13	10.66	10.65	11.17	11.66
	8H	18.16	18.63	18.68	19.12	19.69	10.19	10.66	10.70	11.15	11.72