

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: P1056554

Luminaire Tested: S125R3DR-H375D840-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056554
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-H375D840-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

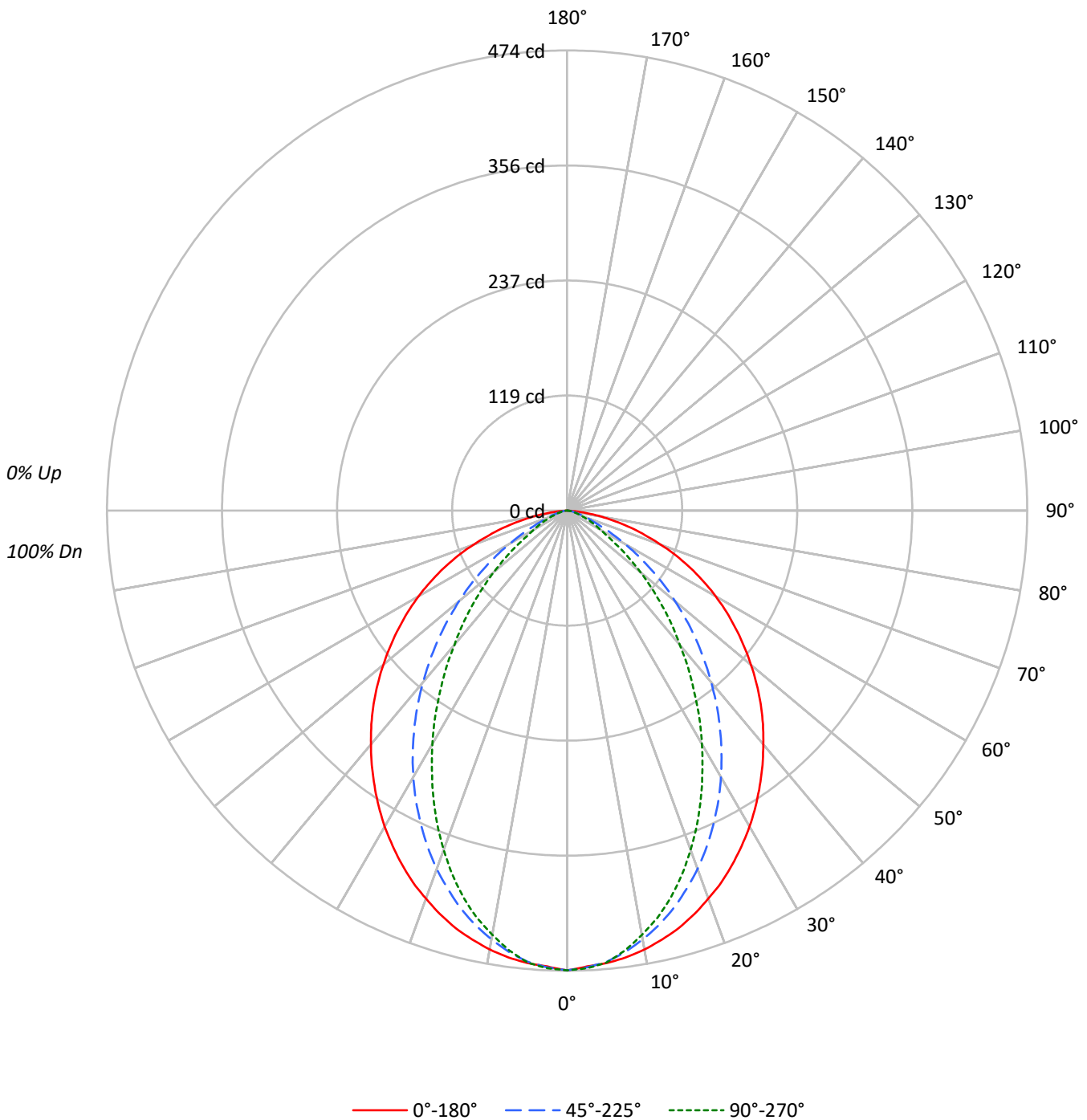
Lumens per Lamp: N/A
Luminaire Lumens: 855.9 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3348	3348	3348
5°	3320	3310	3317
10°	3296	3220	3185
15°	3258	3103	3020
20°	3200	2956	2797
25°	3140	2781	2544
30°	3068	2588	2266
35°	2986	2369	1971
40°	2901	2128	1668
45°	2818	1877	1381
50°	2720	1596	1085
55°	2615	1297	789
60°	2498	967	564
65°	2347	637	440
70°	2121	444	308
75°	1844	287	240
80°	1445	216	195
85°	746	178	146

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2818 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.1	5.2
10°-20°	119.9	14.0
20°-30°	165.8	19.4
30°-40°	175.7	20.5
40°-50°	153.3	17.9
50°-60°	109.1	12.7
60°-70°	60.6	7.1
70°-80°	23.3	2.7
80°-90°	4.0	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°	329.8	38.5
0°-40°	505.5	59.1
0°-60°	767.9	89.7
0°-90°	855.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	855.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	474	474	474	474	474	
5°	468	471	466	465	467	44
15°	445	441	424	415	413	125
25°	402	389	356	335	326	185
35°	346	322	274	241	228	216
45°	282	248	188	150	138	217
55°	212	170	105	73	64	190
65°	140	92	38	28	26	139
75°	68	26	10	9	9	72
85°	9	3	2	2	2	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	473.6	473.6	473.6	473.6	473.6
2.5°	470.0	474.9	470.9	471.4	471.8
5°	467.9	471.4	466.5	465.2	467.4
7.5°	464.3	467.0	458.6	455.6	456.9
10°	459.1	460.0	448.6	444.2	443.7
12.5°	452.5	451.2	437.2	430.1	429.7
15°	445.1	441.1	424.0	414.8	412.6
17.5°	435.8	429.7	408.7	396.8	393.3
20°	425.3	417.0	392.9	377.5	371.8
22.5°	414.8	403.4	375.3	356.0	349.9
25°	402.5	388.9	356.5	334.6	326.2
27.5°	389.4	373.1	337.2	311.8	301.7
30°	375.8	356.9	317.0	288.5	277.6
32.5°	361.3	339.8	296.0	264.8	253.4
35°	346.0	322.3	274.5	241.2	228.4
37.5°	330.6	304.3	253.4	217.9	204.8
40°	314.4	285.9	230.6	194.2	180.7
42.5°	298.6	267.0	209.2	171.9	159.6
45°	281.9	248.2	187.7	150.0	138.1
47.5°	264.8	228.4	166.2	129.4	117.5
50°	247.3	209.2	145.1	109.2	98.7
52.5°	229.8	189.9	125.4	89.9	80.7
55°	212.2	170.1	105.2	72.8	64.0
57.5°	194.7	150.8	86.4	57.0	49.1
60°	176.7	131.1	68.4	42.1	39.9
62.5°	158.7	111.8	53.1	34.6	32.9
65°	140.3	92.1	38.1	28.1	26.3
67.5°	121.9	74.1	27.6	21.5	20.2
70°	102.6	56.6	21.5	16.2	14.9
72.5°	84.2	40.8	15.3	11.8	11.4
75°	67.5	26.3	10.5	8.8	8.8
77.5°	50.9	15.8	7.5	6.6	6.6
80°	35.5	9.2	5.3	4.8	4.8
82.5°	21.5	4.8	3.5	3.1	3.1
85°	9.2	2.6	2.2	1.8	1.8
87.5°	1.8	0.9	0.9	0.9	0.9
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	15.36	16.80	15.72	17.12	17.43	8.00	9.44	8.36	9.75	10.07
	3H	16.92	18.20	17.30	18.53	18.90	8.56	9.85	8.94	10.18	10.54
	4H	17.44	18.64	17.84	18.99	19.37	8.69	9.89	9.09	10.24	10.62
	6H	17.78	18.88	18.19	19.25	19.64	8.75	9.86	9.16	10.23	10.62
	8H	17.86	18.91	18.29	19.30	19.70	8.76	9.81	9.18	10.20	10.60
	12H	17.88	18.89	18.32	19.27	19.70	8.75	9.75	9.18	10.14	10.57
4H	2H	15.25	16.46	15.66	16.81	17.19	8.56	9.76	8.96	10.11	10.49
	3H	16.92	17.91	17.33	18.31	18.71	9.23	10.22	9.64	10.62	11.02
	4H	17.47	18.35	17.90	18.77	19.21	9.39	10.28	9.83	10.69	11.13
	6H	17.86	18.63	18.32	19.07	19.54	9.50	10.27	9.96	10.71	11.17
	8H	17.97	18.68	18.44	19.13	19.60	9.52	10.23	9.98	10.67	11.14
	12H	18.02	18.65	18.50	19.13	19.60	9.52	10.15	10.00	10.63	11.11
8H	4H	17.37	18.09	17.84	18.53	19.00	9.66	10.37	10.13	10.82	11.29
	6H	17.76	18.35	18.26	18.84	19.32	9.80	10.38	10.30	10.87	11.35
	8H	17.87	18.39	18.39	18.91	19.40	9.82	10.35	10.34	10.86	11.35
	12H	17.93	18.40	18.44	18.89	19.46	9.85	10.31	10.36	10.81	11.37
12H	4H	17.34	17.97	17.82	18.45	18.92	9.68	10.31	10.16	10.79	11.26
	6H	17.71	18.23	18.23	18.75	19.24	9.81	10.33	10.33	10.85	11.34
	8H	17.84	18.30	18.35	18.79	19.36	9.87	10.33	10.38	10.82	11.39