

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: P1056625

Luminaire Tested: S125R3DR-H850D950-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056625
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H850D950-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

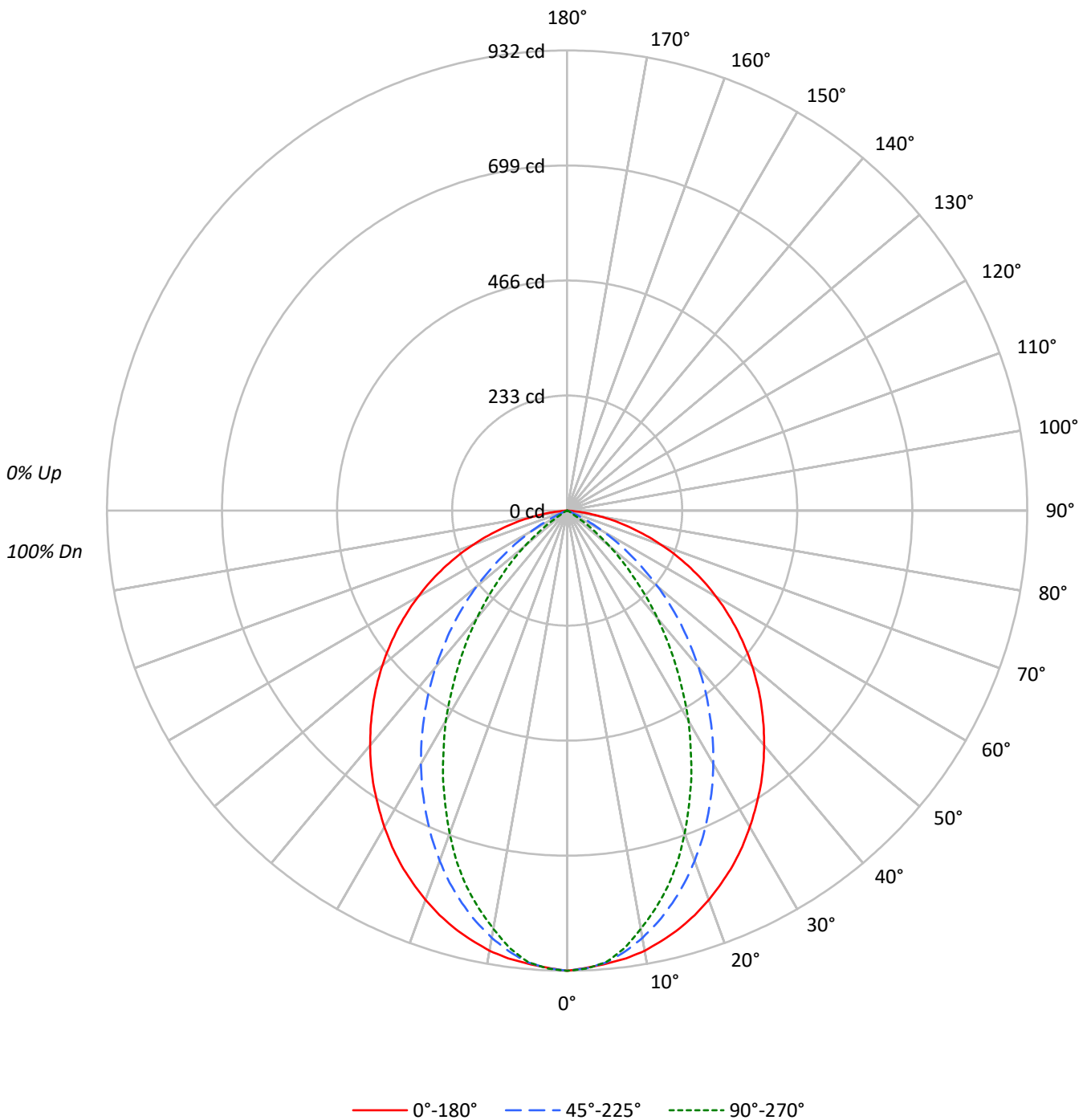
Lumens per Lamp: N/A
Luminaire Lumens: 1510.8 lumens
Efficiency: N/A
Efficacy: 63.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	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					100			
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78					78			
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61					61			
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55					55			
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49					49			
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45					45			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6589	6589	6589
5°	6536	6517	6510
10°	6499	6307	6174
15°	6416	6024	5767
20°	6310	5678	5233
25°	6190	5274	4640
30°	6041	4834	4012
35°	5892	4345	3317
40°	5729	3820	2625
45°	5560	3260	1903
50°	5375	2632	1230
55°	5169	1924	546
60°	4925	1189	157
65°	4620	433	92
70°	4181	153	37
75°	3633	49	25
80°	2785	37	0
85°	1273	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5560 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.6	5.7
10°-20°	232.5	15.4
20°-30°	314.5	20.8
30°-40°	323.1	21.4
40°-50°	267.7	17.7
50°-60°	171.8	11.4
60°-70°	83.0	5.5
70°-80°	28.1	1.9
80°-90°	3.6	0.2
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°	633.6	41.9
0°-40°	956.6	63.3
0°-60°	1396.2	92.4
0°-90°	1510.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1510.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	932	932	932	932	932	
5°	921	928	918	913	917	87
15°	877	866	823	794	788	247
25°	794	755	676	615	595	365
35°	683	617	504	416	384	427
45°	556	465	326	225	190	429
55°	419	308	156	68	44	375
65°	276	152	26	7	6	273
75°	133	29	2	1	1	141
85°	16	0	0	0	0	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	932.1	932.1	932.1	932.1	932.1
2.5°	926.6	934.0	927.5	926.6	928.4
5°	921.1	928.4	918.3	912.7	917.4
7.5°	914.6	918.3	900.7	891.5	893.3
10°	905.4	904.4	878.6	862.9	860.1
12.5°	891.5	886.9	852.7	830.5	825.9
15°	876.7	865.6	823.1	794.5	788.0
17.5°	859.2	841.6	790.8	753.8	744.6
20°	838.8	814.8	754.8	709.5	695.6
22.5°	816.7	786.2	716.9	663.3	644.8
25°	793.6	754.8	676.2	615.3	594.9
27.5°	767.7	722.4	635.6	566.3	541.4
30°	740.0	688.3	592.2	516.4	491.5
32.5°	711.3	654.1	548.8	466.5	436.0
35°	682.7	617.1	503.5	415.7	384.3
37.5°	652.2	580.2	459.1	367.7	333.5
40°	620.8	542.3	413.9	317.8	284.5
42.5°	588.5	503.5	368.6	270.7	236.5
45°	556.1	464.7	326.1	225.4	190.3
47.5°	522.9	425.0	281.8	181.1	150.6
50°	488.7	386.2	239.3	141.3	111.8
52.5°	454.5	346.4	195.9	102.5	75.8
55°	419.4	307.6	156.1	68.4	44.3
57.5°	384.3	267.9	119.2	37.9	16.6
60°	348.3	230.0	84.1	12.9	11.1
62.5°	313.2	189.4	52.7	10.2	8.3
65°	276.2	152.4	25.9	7.4	5.5
67.5°	240.2	117.3	11.1	4.6	2.8
70°	202.3	85.0	7.4	2.8	1.8
72.5°	167.2	54.5	4.6	1.8	0.9
75°	133.0	28.6	1.8	0.9	0.9
77.5°	99.8	12.0	0.9	0.9	0.9
80°	68.4	5.5	0.9	0.9	0.0
82.5°	40.6	1.8	0.9	0.9	0.0
85°	15.7	0.0	0.0	0.0	0.0
87.5°	0.9	0.0	0.0	0.0	0.0
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	17.62	19.00	17.98	19.32	19.63	2.49	3.87	2.85	4.18	4.50
	3H	19.17	20.40	19.55	20.73	21.09	2.41	3.64	2.79	3.97	4.33
	4H	19.69	20.84	20.09	21.19	21.57	2.34	3.49	2.74	3.84	4.22
	6H	20.03	21.08	20.44	21.45	21.84	2.27	3.32	2.69	3.69	4.09
	8H	20.11	21.11	20.54	21.50	21.90	2.23	3.23	2.66	3.62	4.02
	12H	20.13	21.08	20.56	21.46	21.89	2.19	3.14	2.62	3.53	3.96
4H	2H	17.42	18.57	17.82	18.92	19.30	3.35	4.50	3.75	4.85	5.23
	3H	19.04	19.97	19.45	20.37	20.78	3.30	4.23	3.71	4.64	5.04
	4H	19.56	20.39	19.99	20.81	21.25	3.22	4.06	3.66	4.47	4.92
	6H	19.93	20.65	20.40	21.10	21.56	3.16	3.88	3.62	4.32	4.79
	8H	20.03	20.70	20.50	21.15	21.62	3.11	3.78	3.57	4.22	4.69
	12H	20.07	20.66	20.55	21.14	21.62	3.06	3.66	3.55	4.14	4.61
8H	4H	19.43	20.10	19.90	20.55	21.02	4.24	4.91	4.71	5.36	5.83
	6H	19.79	20.33	20.29	20.83	21.31	4.16	4.71	4.66	5.20	5.68
	8H	19.88	20.37	20.40	20.89	21.38	4.11	4.60	4.63	5.11	5.60
	12H	19.92	20.36	20.44	20.85	21.42	4.07	4.50	4.58	4.99	5.56
12H	4H	19.39	19.98	19.87	20.46	20.94	4.32	4.91	4.81	5.40	5.87
	6H	19.73	20.22	20.25	20.73	21.22	4.22	4.71	4.74	5.23	5.72
	8H	19.84	20.27	20.35	20.77	21.34	4.19	4.62	4.70	5.12	5.69