

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: P1056549

Luminaire Tested: S125R3DR-H375D830-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056549
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-H375D830-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, 80 CRI LEDS
Ballast/Driver: -

Summary

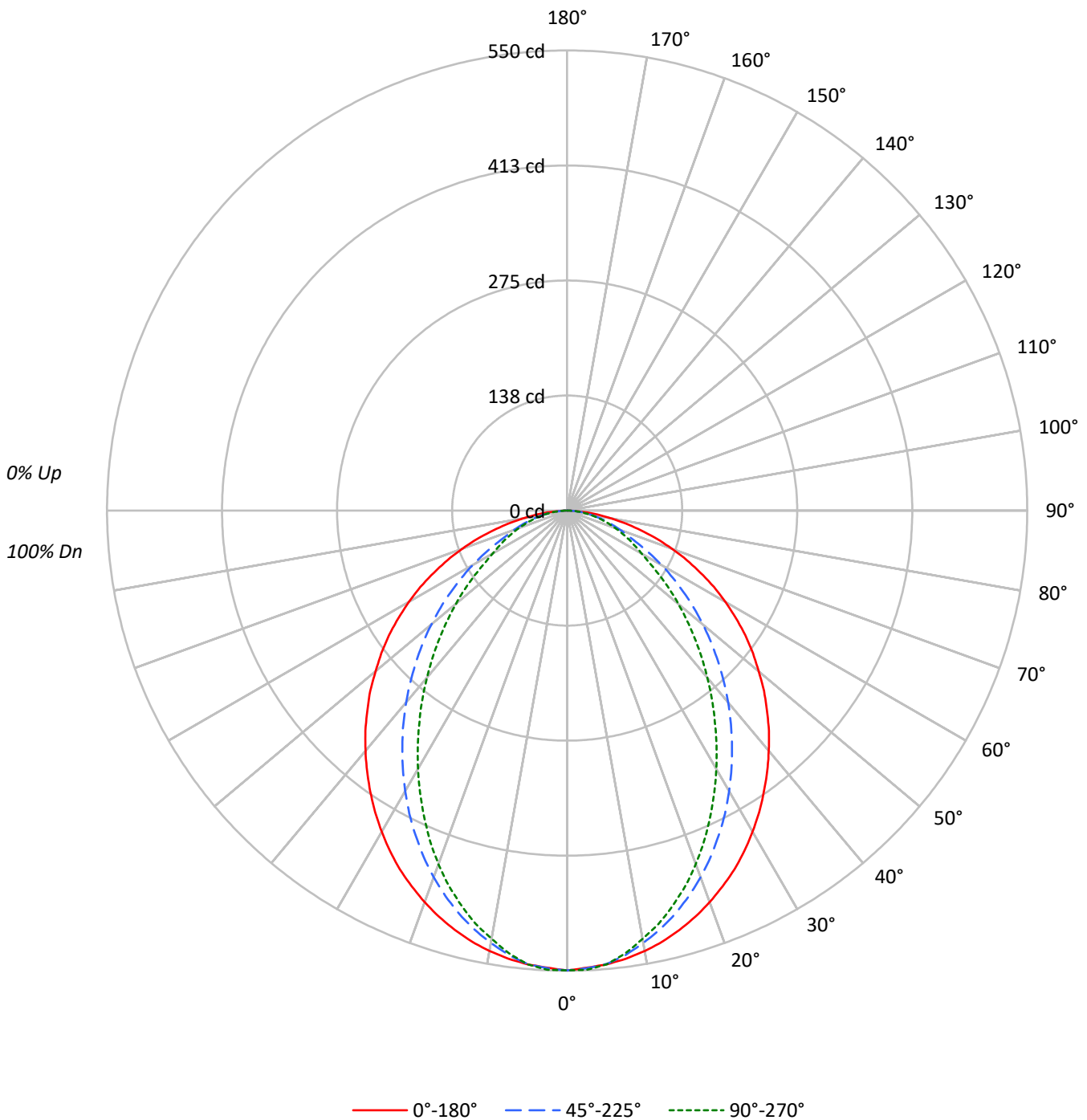
Lumens per Lamp: N/A
Luminaire Lumens: 1164.9 lumens
Efficiency: N/A
Efficacy: 99.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	31	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3885	3885	3885
5°	3863	3860	3863
10°	3837	3767	3731
15°	3798	3651	3576
20°	3747	3509	3384
25°	3690	3342	3154
30°	3618	3160	2910
35°	3539	2964	2656
40°	3460	2761	2406
45°	3375	2549	2156
50°	3285	2332	1908
55°	3203	2093	1659
60°	3089	1839	1458
65°	2937	1561	1355
70°	2757	1395	1269
75°	2494	1286	1196
80°	2166	1164	1115
85°	1695	1030	1030

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3375 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.4	4.4
10°-20°	141.2	12.1
20°-30°	199.5	17.1
30°-40°	219.6	18.8
40°-50°	204.8	17.6
50°-60°	163.5	14.0
60°-70°	110.0	9.4
70°-80°	58.6	5.0
80°-90°	16.3	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°	392.1	33.7
0°-40°	611.7	52.5
0°-60°	980.0	84.1
0°-90°	1164.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1164.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	544	549	544	542	544	52
15°	519	516	499	490	489	146
25°	473	459	428	410	404	218
35°	410	386	343	316	308	257
45°	338	306	255	224	216	261
55°	260	221	170	143	135	232
65°	176	137	93	83	81	174
75°	91	61	47	44	44	97
85°	21	14	13	13	13	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	549.6	549.6	549.6	549.6	549.6
2.5°	546.8	551.3	547.6	548.4	549.2
5°	544.3	548.8	543.9	542.2	544.3
7.5°	540.2	543.9	535.7	532.0	533.7
10°	534.5	536.9	524.7	519.7	519.7
12.5°	527.5	527.5	512.8	505.8	505.8
15°	518.9	516.1	498.9	490.3	488.6
17.5°	509.1	503.8	483.3	472.3	470.2
20°	498.1	489.5	466.5	452.2	449.8
22.5°	485.8	474.7	448.1	430.5	427.7
25°	473.1	458.8	428.5	409.7	404.3
27.5°	458.8	441.6	408.4	387.1	380.6
30°	443.2	423.6	387.1	363.4	356.5
32.5°	427.3	405.2	365.5	340.1	332.3
35°	410.1	385.9	343.4	316.3	307.8
37.5°	392.9	366.7	321.7	293.4	284.4
40°	374.9	346.2	299.2	270.1	260.7
42.5°	356.9	326.2	277.1	247.6	237.8
45°	337.6	305.7	255.0	223.9	215.7
47.5°	319.2	284.8	233.3	203.0	194.0
50°	298.7	263.1	212.0	181.7	173.5
52.5°	279.9	241.9	190.7	162.5	153.9
55°	259.9	220.6	169.8	142.8	134.6
57.5°	239.0	199.3	149.8	124.4	116.6
60°	218.5	178.0	130.1	106.8	103.1
62.5°	197.7	158.0	111.7	93.7	91.3
65°	175.6	137.1	93.3	82.7	81.0
67.5°	154.7	117.0	78.6	72.4	70.8
70°	133.4	97.0	67.5	62.2	61.4
72.5°	112.5	77.8	56.9	53.2	52.4
75°	91.3	60.6	47.1	44.2	43.8
77.5°	71.6	45.4	37.2	36.0	35.2
80°	53.2	34.0	28.6	27.8	27.4
82.5°	36.4	23.3	20.5	20.5	19.6
85°	20.9	14.3	12.7	13.1	12.7
87.5°	7.8	6.1	5.7	6.1	6.1
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	16.00	17.54	16.37	17.86	18.17	12.39	13.92	12.75	14.24	14.55
	3H	17.79	19.17	18.17	19.50	19.86	13.86	15.24	14.24	15.57	15.93
	4H	18.44	19.74	18.84	20.09	20.47	14.45	15.75	14.85	16.10	16.48
	6H	18.92	20.12	19.33	20.49	20.88	14.91	16.12	15.33	16.48	16.87
	8H	19.07	20.22	19.50	20.61	21.01	15.07	16.22	15.50	16.61	17.01
	12H	19.17	20.26	19.60	20.65	21.07	15.19	16.28	15.62	16.67	17.10
4H	2H	16.14	17.44	16.54	17.79	18.16	13.06	14.36	13.46	14.71	15.09
	3H	18.11	19.19	18.52	19.59	19.99	14.74	15.82	15.15	16.22	16.62
	4H	18.85	19.83	19.29	20.24	20.68	15.44	16.42	15.87	16.83	17.27
	6H	19.45	20.30	19.91	20.74	21.20	16.03	16.88	16.48	17.32	17.78
	8H	19.65	20.45	20.12	20.89	21.36	16.24	17.03	16.70	17.47	17.94
	12H	19.80	20.51	20.28	20.99	21.46	16.40	17.11	16.88	17.58	18.05
8H	4H	18.92	19.71	19.38	20.15	20.62	15.81	16.60	16.27	17.04	17.51
	6H	19.58	20.23	20.07	20.72	21.20	16.51	17.16	17.00	17.65	18.13
	8H	19.83	20.42	20.34	20.93	21.42	16.79	17.38	17.31	17.89	18.38
	12H	20.04	20.56	20.55	21.05	21.62	17.03	17.56	17.54	18.05	18.61
12H	4H	18.91	19.62	19.39	20.10	20.57	15.85	16.56	16.34	17.04	17.51
	6H	19.57	20.16	20.08	20.67	21.16	16.58	17.17	17.09	17.68	18.17
	8H	19.87	20.39	20.37	20.88	21.44	16.92	17.44	17.43	17.94	18.50