

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: P1058373

Luminaire Tested: S122RDR-H485D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058373
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D835-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

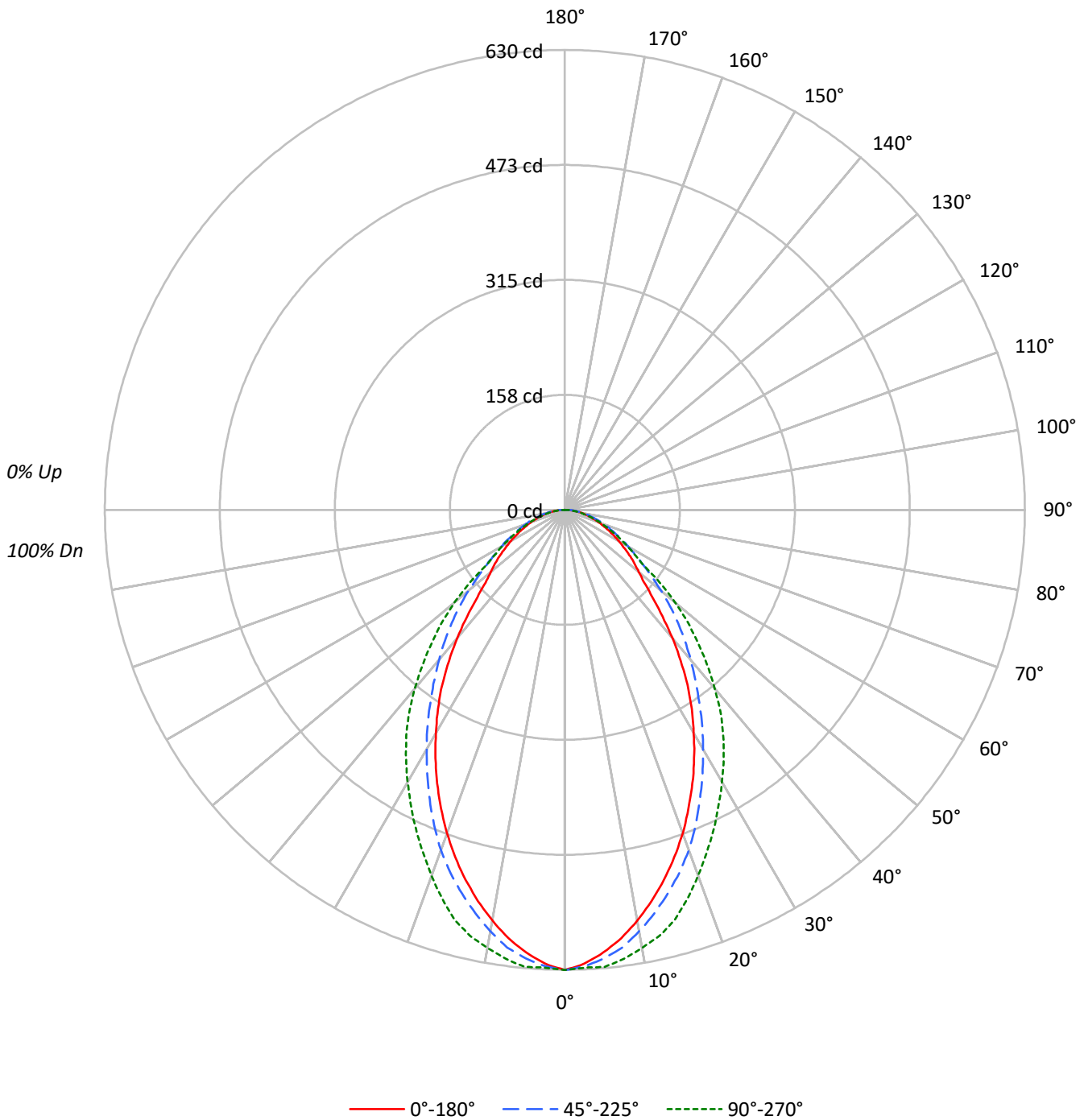
Lumens per Lamp: N/A
Luminaire Lumens: 1027.8 lumens
Efficiency: N/A
Efficacy: 59.1 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	46	39	35	46	39	35	45	39	35	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11632	11632	11632
5°	11275	11427	11640
10°	10708	10987	11418
15°	10024	10398	11111
20°	9265	9744	10476
25°	8419	8916	9828
30°	7526	8060	9173
35°	6596	7222	8522
40°	5519	6451	7691
45°	4423	5715	6722
50°	3795	4923	5644
55°	3468	4189	4166
60°	3152	3702	3628
65°	2873	3314	3166
70°	2633	3037	2816
75°	2467	2802	2467
80°	2306	2593	2157
85°	2287	2731	1863

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6722 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.2	5.7
10°-20°	154.1	15.0
20°-30°	203.2	19.8
30°-40°	204.6	19.9
40°-50°	166.6	16.2
50°-60°	113.6	11.0
60°-70°	73.7	7.2
70°-80°	40.6	3.9
80°-90°	13.2	1.3
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°	415.5	40.4
0°-40°	620.1	60.3
0°-60°	900.2	87.6
0°-90°	1027.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1027.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	630	630	630	630	630	
5°	609	620	617	622	628	57
15°	525	538	544	567	582	147
25°	414	427	438	458	483	190
35°	293	308	321	348	378	182
45°	170	190	219	238	258	134
55°	108	119	130	131	130	97
65°	66	78	76	72	72	65
75°	35	43	39	35	35	37
85°	11	14	13	10	9	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	630.4	630.4	630.4	630.4	630.4
2.5°	622.3	632.5	625.7	626.4	627.7
5°	608.7	620.3	616.9	622.3	628.4
7.5°	591.8	603.3	604.7	612.8	620.3
10°	571.5	584.3	586.4	598.6	609.4
12.5°	549.1	563.3	566.0	583.7	597.9
15°	524.7	538.2	544.3	566.7	581.6
17.5°	498.9	511.8	521.3	541.6	558.6
20°	471.8	484.0	496.2	514.5	533.5
22.5°	442.7	456.2	467.7	486.0	507.7
25°	413.5	427.1	437.9	457.6	482.7
27.5°	383.7	397.2	408.1	429.1	456.2
30°	353.2	367.4	378.3	402.0	430.5
32.5°	323.4	337.6	349.8	374.9	404.7
35°	292.8	307.8	320.6	348.4	378.3
37.5°	260.3	277.3	293.5	321.3	350.5
40°	229.1	248.1	267.8	293.5	319.3
42.5°	197.9	219.0	243.4	265.1	288.8
45°	169.5	190.5	219.0	237.9	257.6
47.5°	147.1	164.7	195.2	210.8	228.4
50°	132.2	144.4	171.5	183.7	196.6
52.5°	120.0	130.2	149.1	157.3	164.0
55°	107.8	118.6	130.2	130.8	129.5
57.5°	95.6	107.8	113.9	109.1	111.9
60°	85.4	97.6	100.3	95.6	98.3
62.5°	74.6	88.1	88.1	83.4	84.7
65°	65.8	78.0	75.9	71.9	72.5
67.5°	56.9	69.1	65.8	61.7	61.7
70°	48.8	60.3	56.3	52.2	52.2
72.5°	41.4	50.8	48.1	43.4	42.7
75°	34.6	42.7	39.3	35.3	34.6
77.5°	27.8	34.6	31.9	28.5	27.1
80°	21.7	27.8	24.4	21.7	20.3
82.5°	16.3	21.0	18.3	15.6	14.2
85°	10.8	14.2	12.9	10.2	8.8
87.5°	5.4	9.5	8.1	6.8	5.4
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	15.25	16.68	15.61	17.00	17.31	15.49	16.93	15.86	17.24	17.56
	3H	16.77	18.06	17.15	18.39	18.75	16.85	18.14	17.23	18.46	18.83
	4H	17.33	18.54	17.74	18.89	19.27	17.33	18.54	17.73	18.89	19.27
	6H	17.76	18.87	18.17	19.24	19.63	17.68	18.79	18.09	19.16	19.55
	8H	17.91	18.97	18.34	19.36	19.76	17.79	18.84	18.21	19.23	19.64
	12H	18.02	19.04	18.46	19.42	19.85	17.86	18.87	18.29	19.25	19.68
4H	2H	15.82	17.02	16.22	17.37	17.75	16.01	17.22	16.41	17.57	17.95
	3H	17.62	18.62	18.03	19.02	19.42	17.59	18.59	18.00	18.99	19.39
	4H	18.36	19.26	18.79	19.68	20.12	18.18	19.08	18.62	19.50	19.94
	6H	18.95	19.73	19.41	20.17	20.63	18.65	19.43	19.11	19.88	20.34
	8H	19.16	19.89	19.62	20.33	20.80	18.80	19.53	19.27	19.98	20.45
	12H	19.32	19.97	19.81	20.45	20.93	18.91	19.56	19.40	20.04	20.51
8H	4H	18.63	19.36	19.09	19.80	20.27	18.48	19.20	18.94	19.65	20.12
	6H	19.38	19.98	19.88	20.48	20.96	19.07	19.67	19.56	20.16	20.64
	8H	19.71	20.25	20.23	20.76	21.25	19.29	19.83	19.80	20.34	20.83
	12H	19.99	20.47	20.50	20.96	21.53	19.47	19.95	19.98	20.44	21.01
12H	4H	18.64	19.29	19.12	19.77	20.24	18.51	19.16	18.99	19.64	20.11
	6H	19.43	19.97	19.95	20.48	20.97	19.13	19.67	19.65	20.19	20.67
	8H	19.83	20.30	20.34	20.80	21.36	19.42	19.90	19.93	20.39	20.96