

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: P1057962

Luminaire Tested: S122RDRP-S485D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057962
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D835-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

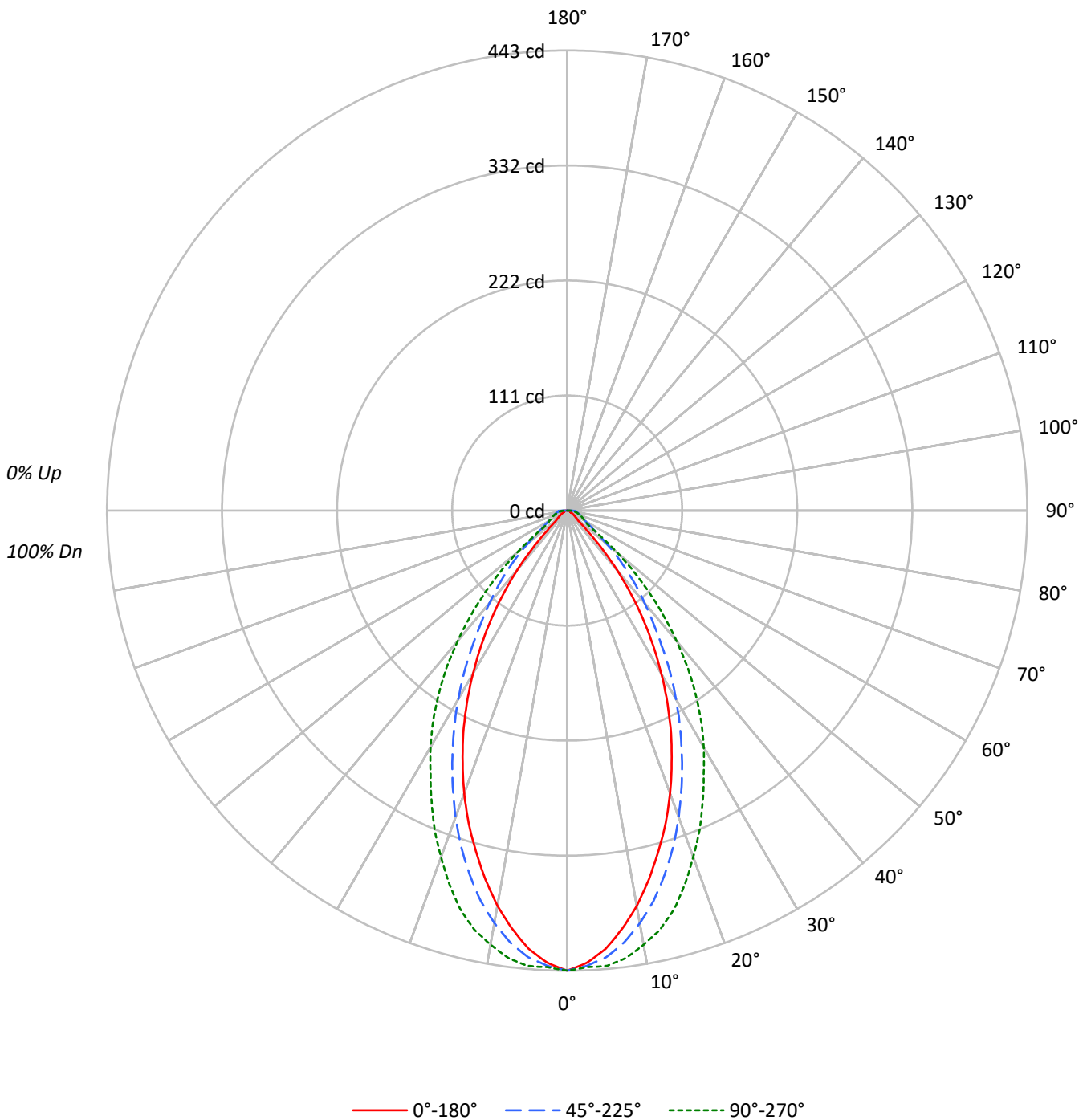
Lumens per Lamp: N/A
Luminaire Lumens: 482.0 lumens
Efficiency: N/A
Efficacy: 24.6 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74				74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				67
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61				61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8173	8173	8173
5°	7848	7993	8150
10°	7236	7555	7952
15°	6484	6931	7594
20°	5691	6164	6971
25°	4819	5324	6289
30°	3865	4468	5602
35°	2856	3575	4852
40°	1792	2799	3943
45°	702	2109	2923
50°	344	1424	1791
55°	273	936	798
60°	210	757	731
65°	153	712	712
70°	189	728	728
75°	200	806	756
80°	298	1052	829
85°	593	1800	1207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 3300 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.4	8.4
10°-20°	102.3	21.2
20°-30°	122.3	25.4
30°-40°	103.0	21.4
40°-50°	58.6	12.2
50°-60°	23.1	4.8
60°-70°	14.6	3.0
70°-80°	10.8	2.2
80°-90°	6.9	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°	265.0	55.0
0°-40°	368.0	76.3
0°-60°	449.8	93.3
0°-90°	482.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	482.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	443	443	443	443	443	
5°	424	433	432	436	440	39
15°	339	352	363	384	398	95
25°	237	247	262	288	309	108
35°	127	138	159	193	215	79
45°	27	48	81	101	112	25
55°	8	18	29	30	25	8
65°	4	16	16	16	16	4
75°	3	11	11	11	11	3
85°	3	8	8	8	6	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	442.9	442.9	442.9	442.9	442.9
2.5°	435.8	443.6	438.6	439.3	440.0
5°	423.7	432.9	431.5	436.5	440.0
7.5°	406.0	415.9	419.5	428.0	434.4
10°	386.2	397.5	403.2	416.6	424.4
12.5°	363.5	376.3	384.8	401.8	413.1
15°	339.4	351.5	362.8	384.0	397.5
17.5°	315.3	327.4	339.4	362.8	377.0
20°	289.8	301.1	313.9	338.7	355.0
22.5°	262.9	274.9	287.7	313.2	333.0
25°	236.7	247.3	261.5	288.4	308.9
27.5°	209.0	219.7	235.2	262.9	284.8
30°	181.4	192.0	209.7	238.1	262.9
32.5°	153.8	165.1	184.2	215.4	240.2
35°	126.8	138.2	158.7	192.7	215.4
37.5°	100.6	113.4	136.0	169.3	190.6
40°	74.4	89.3	116.2	146.0	163.7
42.5°	49.6	68.0	97.8	122.6	137.5
45°	26.9	47.5	80.8	101.3	112.0
47.5°	14.9	30.5	64.5	80.8	87.2
50°	12.0	21.3	49.6	61.6	62.4
52.5°	9.9	19.1	36.8	43.9	40.4
55°	8.5	18.4	29.1	29.8	24.8
57.5°	7.1	17.7	24.1	21.3	21.3
60°	5.7	17.7	20.5	19.1	19.8
62.5°	4.3	17.7	18.4	17.0	17.7
65°	3.5	16.3	16.3	15.6	16.3
67.5°	3.5	14.9	14.9	14.2	14.9
70°	3.5	14.2	13.5	13.5	13.5
72.5°	2.8	12.8	12.8	12.0	12.0
75°	2.8	11.3	11.3	10.6	10.6
77.5°	2.8	10.6	10.6	9.9	9.2
80°	2.8	9.2	9.9	9.2	7.8
82.5°	2.8	8.5	9.2	8.5	6.4
85°	2.8	7.8	8.5	7.8	5.7
87.5°	2.1	7.8	7.8	6.4	4.3
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	4.99	6.21	5.35	6.52	6.84	7.03	8.25	7.39	8.56	8.88
	3H	6.53	7.61	6.91	7.94	8.31	9.00	10.09	9.38	10.42	10.78
	4H	7.08	8.09	7.48	8.44	8.83	9.91	10.92	10.31	11.27	11.66
	6H	7.63	8.56	8.05	8.93	9.33	10.79	11.72	11.20	12.09	12.48
	8H	7.92	8.80	8.35	9.19	9.60	11.19	12.07	11.62	12.46	12.87
	12H	8.28	9.12	8.71	9.50	9.93	11.64	12.48	12.07	12.86	13.29
4H	2H	6.17	7.19	6.58	7.54	7.92	7.64	8.66	8.05	9.01	9.39
	3H	8.38	9.21	8.79	9.62	10.02	9.89	10.72	10.30	11.13	11.53
	4H	9.42	10.17	9.86	10.59	11.04	10.95	11.70	11.39	12.12	12.57
	6H	10.31	10.96	10.78	11.41	11.88	12.06	12.71	12.52	13.16	13.62
	8H	10.70	11.30	11.17	11.75	12.22	12.59	13.19	13.06	13.64	14.11
	12H	11.12	11.65	11.60	12.13	12.61	13.17	13.70	13.65	14.18	14.66
8H	4H	10.22	10.83	10.70	11.28	11.75	11.44	12.05	11.91	12.50	12.97
	6H	11.60	12.10	12.11	12.60	13.08	12.84	13.33	13.34	13.83	14.31
	8H	12.32	12.77	12.84	13.28	13.78	13.58	14.02	14.10	14.54	15.03
	12H	13.07	13.46	13.59	13.96	14.53	14.41	14.81	14.93	15.30	15.88
12H	4H	10.39	10.92	10.87	11.41	11.88	11.54	12.08	12.03	12.56	13.04
	6H	11.93	12.38	12.46	12.90	13.39	13.05	13.50	13.58	14.02	14.51
	8H	12.85	13.24	13.37	13.74	14.31	13.94	14.33	14.46	14.83	15.40