

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: P998441

Luminaire Tested: SA2XXDIP-B485D330UB27-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998441
REPORT IS A COMBINATION OF REPORTS P984184 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D330UB27-4F0-XX-W2A-F
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

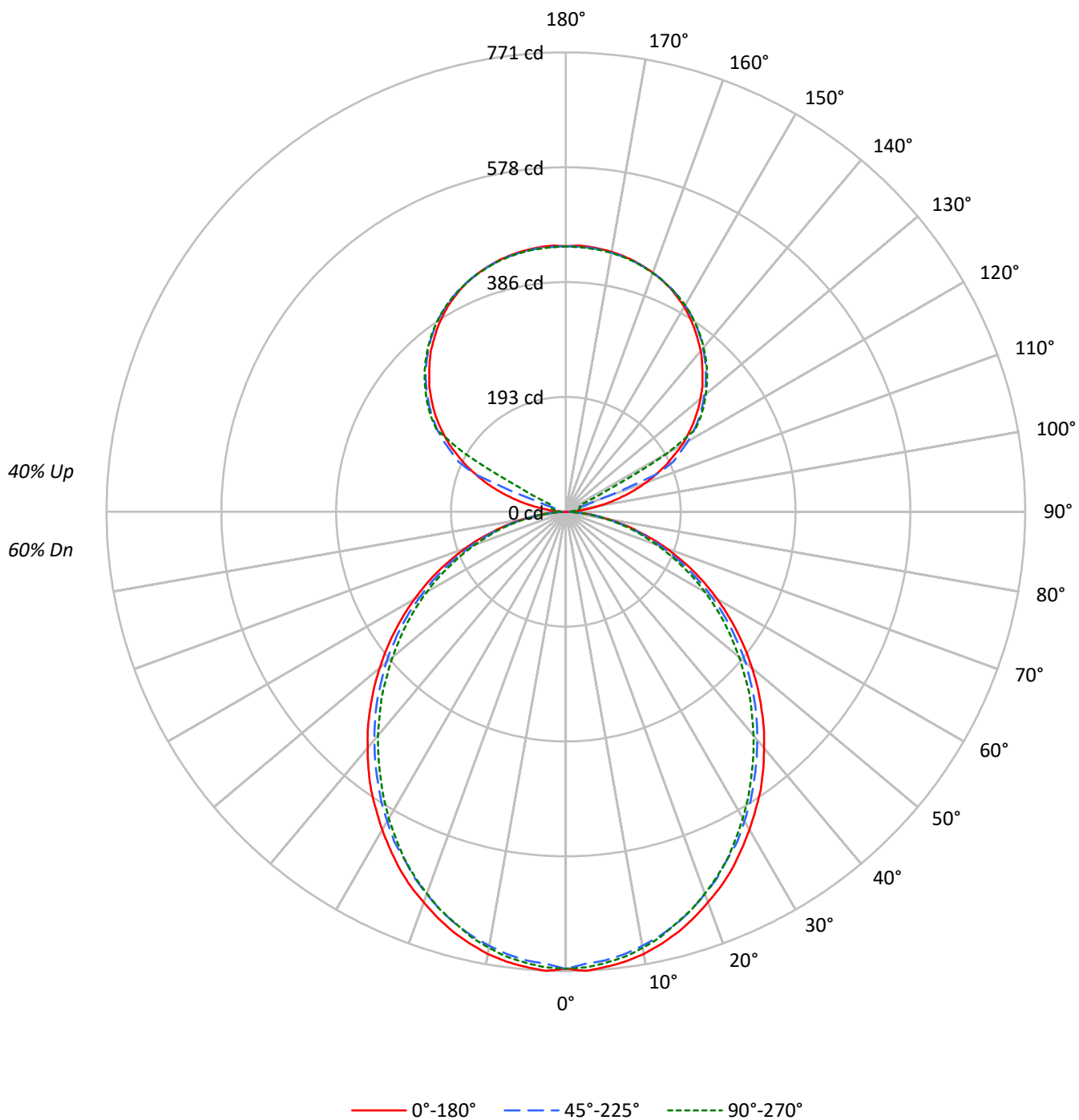
Lumens per Lamp: N/A
Luminaire Lumens: 3258.0 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 33.3
Input Voltage (V):
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65
1	100	96	92	88	93	89	86	83	78	75	73	67	66	64	58	56	55
2	91	84	77	72	85	78	73	68	68	64	61	59	56	53	51	48	46
3	83	73	66	60	77	69	62	57	60	55	51	52	48	45	45	42	40
4	76	65	57	51	71	61	54	48	54	48	43	47	42	39	40	37	34
5	70	58	50	44	65	55	47	42	48	42	38	42	37	34	36	33	30
6	64	52	44	38	60	49	42	36	43	37	33	38	33	29	33	29	26
7	60	47	39	33	56	44	37	32	39	33	29	35	30	26	30	26	23
8	55	43	35	30	52	40	33	28	36	30	26	32	27	23	28	24	21
9	52	39	32	26	48	37	30	25	33	27	23	29	24	21	26	22	19
10	48	36	29	24	45	34	27	23	30	25	21	27	22	19	24	20	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12139	12139	12139
5°	12159	11571	11488
10°	12060	11044	10825
15°	11883	10512	10125
20°	11644	9934	9464
25°	11407	9330	8802
30°	11106	8764	8109
35°	10825	8165	7428
40°	10476	7574	6783
45°	10129	6989	6152
50°	9752	6394	5497
55°	9353	5755	4877
60°	8906	5066	4232
65°	8415	4365	3554
70°	7791	3597	2869
75°	6931	2773	2216
80°	5884	1884	1425
85°	4266	878	607

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 10129 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	2.2
10°-20°	203.1	6.2
20°-30°	298.4	9.2
30°-40°	346.6	10.6
40°-50°	346.2	10.6
50°-60°	301.9	9.3
60°-70°	223.1	6.8
70°-80°	126.3	3.9
80°-90°	34.1	1.0
90°-100°	14.7	0.5
100°-110°	54.8	1.7
110°-120°	145.3	4.5
120°-130°	240.9	7.4
130°-140°	255.9	7.9
140°-150°	237.8	7.3
150°-160°	191.2	5.9
160°-170°	123.2	3.8
170°-180°	42.4	1.3
0°-30°	573.7	17.6
0°-40°	920.3	28.2
0°-60°	1568.3	48.1
0°-90°	1951.8	59.9
90°-120°	214.7	6.6
90°-150°	949.4	29.1
90°-180°	1306.0	40.1
0°-180°	3258.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	767	767	767	767	767	
5°	767	764	756	762	760	73
15°	730	726	716	719	715	206
25°	661	655	642	644	642	304
35°	570	563	551	546	543	356
45°	464	459	448	440	436	358
55°	351	347	338	329	325	314
65°	237	232	225	218	215	234
75°	124	122	119	114	116	132
85°	30	30	29	26	26	34
90°	0	4	6	8	9	3
95°	21	10	13	14	14	25
105°	98	108	20	23	24	105
115°	185	191	199	50	26	183
125°	262	266	272	275	276	234
135°	324	330	332	336	335	251
145°	376	376	381	384	382	235
155°	414	411	415	417	415	191
165°	436	435	436	438	436	123
175°	446	444	445	447	444	42
180°	446	446	446	446	446	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	766.9	766.9	766.9	766.9	766.9
2.5°	771.3	767.6	759.5	766.9	765.4
5°	766.9	763.9	755.8	761.7	760.2
7.5°	761.7	757.3	749.2	755.1	753.6
10°	753.6	748.4	739.6	745.5	743.3
12.5°	742.5	738.1	729.2	732.9	731.5
15°	730.0	725.6	716.0	718.9	715.2
17.5°	714.5	710.1	700.5	704.2	700.5
20°	697.5	693.1	682.8	685.0	682.1
22.5°	680.6	673.9	664.4	664.4	662.9
25°	660.7	654.8	642.2	643.7	642.2
27.5°	638.6	633.4	623.8	621.6	617.9
30°	616.4	610.5	599.5	597.3	594.3
32.5°	592.8	588.4	576.6	572.2	569.2
35°	570.0	562.6	550.8	546.4	542.7
37.5°	544.2	537.5	525.7	520.6	516.9
40°	517.6	511.7	499.9	493.3	490.3
42.5°	491.8	485.9	474.1	466.7	462.3
45°	463.8	458.6	447.6	439.5	436.5
47.5°	436.5	431.4	419.6	411.4	407.0
50°	407.8	404.1	393.8	383.4	379.7
52.5°	379.7	374.6	365.0	356.9	351.7
55°	351.0	346.6	337.7	328.9	325.2
57.5°	322.2	318.5	309.0	300.1	297.2
60°	293.5	290.5	280.2	272.1	269.9
62.5°	265.4	260.3	252.9	245.5	242.6
65°	236.7	232.3	224.9	218.3	214.6
67.5°	207.2	203.5	196.9	191.7	188.8
70°	179.9	177.0	170.3	165.2	162.2
72.5°	151.9	148.9	145.3	140.1	137.9
75°	123.9	122.4	118.7	114.3	115.8
77.5°	98.8	95.9	94.4	92.2	90.0
80°	73.7	73.0	71.5	69.3	67.8
82.5°	50.1	50.1	49.4	46.5	46.5
85°	30.2	29.5	28.8	26.5	25.8
87.5°	13.3	11.8	10.3	8.1	7.4
90°	0.3	3.9	6.4	8.1	8.7
92.5°	8.1	6.8	7.7	8.4	8.7
95°	21.0	10.3	12.6	14.2	13.9
97.5°	37.7	11.3	16.4	17.4	17.7
100°	57.1	12.9	18.4	21.0	21.6
102.5°	78.3	77.7	19.0	22.6	23.5
105°	98.0	107.7	19.7	23.2	24.5
107.5°	120.9	129.0	20.3	23.9	25.1
110°	142.8	149.6	56.4	24.2	25.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	163.5	169.3	163.8	24.8	25.8
115°	185.4	190.9	198.9	49.6	26.4
117.5°	204.4	210.8	216.3	170.2	85.8
120°	225.7	230.5	236.3	240.2	196.7
122.5°	243.7	248.9	255.3	257.3	257.6
125°	262.1	266.3	272.4	274.7	275.7
127.5°	278.9	283.4	288.2	291.4	291.8
130°	294.7	299.8	303.4	306.9	306.6
132.5°	310.8	315.0	318.5	321.4	321.1
135°	324.3	329.5	332.4	335.6	335.0
137.5°	338.5	342.4	345.6	348.8	347.9
140°	352.4	355.0	358.5	361.4	359.8
142.5°	364.0	366.2	370.4	373.0	371.4
145°	376.2	375.9	381.4	383.7	382.0
147.5°	386.9	385.9	391.4	393.0	391.7
150°	397.2	394.9	400.1	402.0	400.4
152.5°	405.9	403.3	408.2	410.1	407.8
155°	414.3	411.4	415.3	417.2	414.6
157.5°	421.1	418.5	421.4	423.6	421.1
160°	426.9	424.9	426.9	428.8	426.5
162.5°	432.0	430.1	431.7	434.0	431.0
165°	436.5	434.6	435.6	437.8	435.6
167.5°	440.1	438.1	439.1	441.4	438.5
170°	443.0	441.0	441.7	443.9	441.0
172.5°	444.9	443.0	443.6	445.9	443.0
175°	446.5	444.3	444.9	447.2	443.9
177.5°	447.2	444.9	445.2	447.5	444.6
180°	445.6	445.6	445.6	445.6	445.6

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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	14.78	15.73	15.64	16.62	17.74	15.56	16.52	16.43	17.41	18.53
	3H	16.12	16.98	17.00	17.88	19.03	17.19	18.05	18.07	18.95	20.10
	4H	16.53	17.34	17.43	18.25	19.41	17.79	18.60	18.68	19.51	20.66
	6H	16.75	17.50	17.66	18.41	19.59	18.20	18.95	19.10	19.86	21.03
	8H	16.79	17.50	17.70	18.43	19.60	18.31	19.02	19.22	19.95	21.12
	12H	16.78	17.46	17.70	18.38	19.58	18.36	19.04	19.28	19.96	21.15
4H	2H	15.26	16.07	16.16	16.97	18.13	15.90	16.71	16.80	17.62	18.78
	3H	16.78	17.46	17.69	18.40	19.57	17.69	18.37	18.60	19.30	20.48
	4H	17.29	17.91	18.22	18.84	20.04	18.38	18.99	19.30	19.93	21.12
	6H	17.60	18.14	18.54	19.09	20.29	18.88	19.41	19.81	20.37	21.57
	8H	17.66	18.16	18.60	19.11	20.32	19.02	19.52	19.96	20.47	21.68
	12H	17.67	18.12	18.62	19.08	20.30	19.09	19.54	20.05	20.51	21.72
8H	4H	17.48	17.98	18.41	18.92	20.14	18.47	18.97	19.41	19.92	21.13
	6H	17.86	18.28	18.83	19.27	20.48	19.04	19.46	20.01	20.45	21.66
	8H	17.97	18.33	18.94	19.31	20.54	19.23	19.60	20.21	20.58	21.81
	12H	18.00	18.33	18.98	19.30	20.58	19.33	19.66	20.31	20.63	21.91
12H	4H	17.46	17.91	18.42	18.88	20.10	18.44	18.89	19.40	19.85	21.07
	6H	17.88	18.25	18.86	19.23	20.46	19.03	19.40	20.01	20.38	21.61
	8H	18.00	18.32	18.98	19.29	20.57	19.24	19.56	20.21	20.53	21.81