

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: P998443

Luminaire Tested: SA2XXDIP-B485D330UB27-4F0-XX-W2A-F4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998443
REPORT IS A COMBINATION OF REPORTS P984186 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D330UB27-4F0-XX-W2A-F4
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

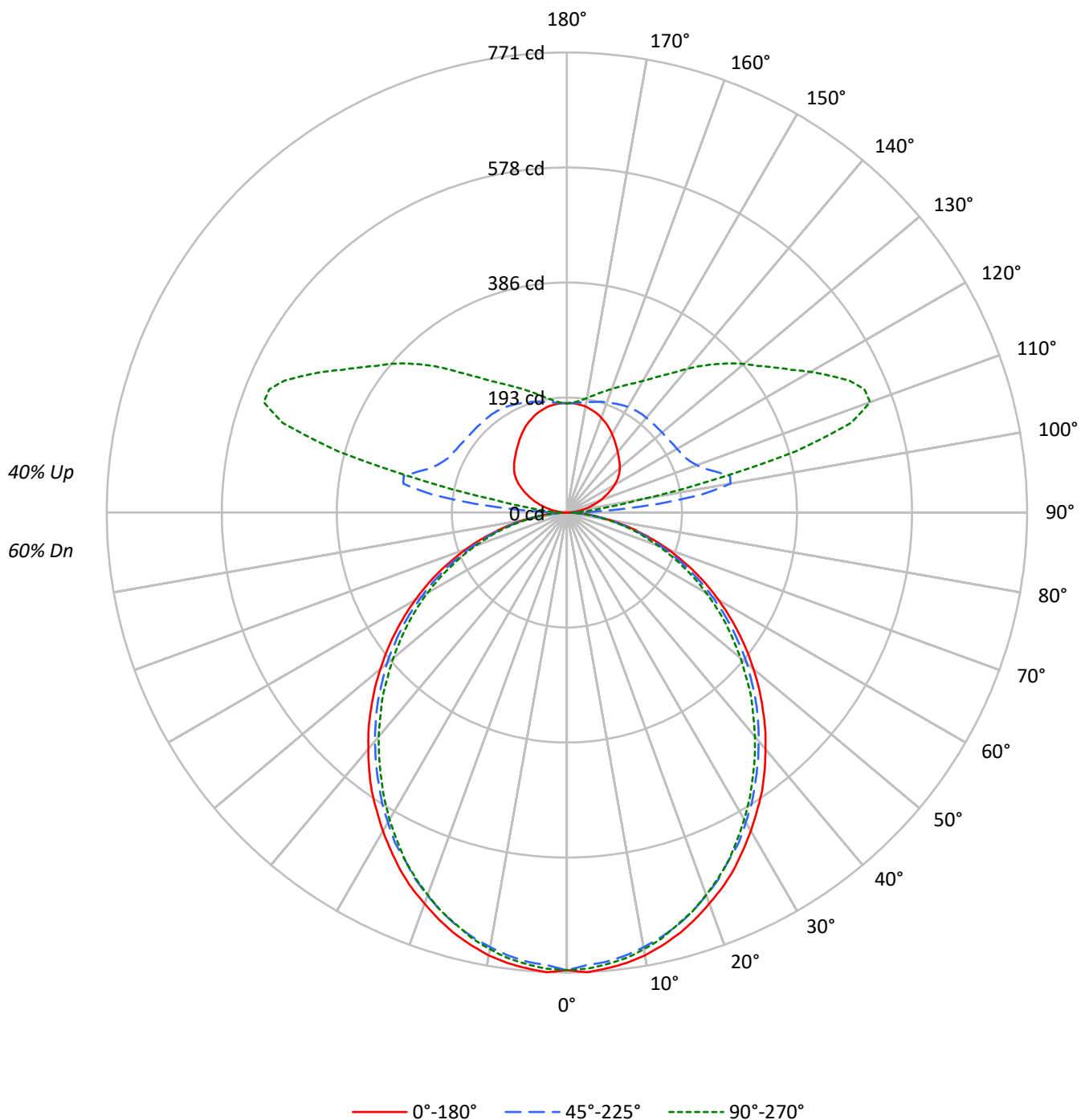
Lumens per Lamp: N/A
Luminaire Lumens: 3229.5 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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

TEST NUMBER: P998443

CATALOG NUMBER: SA2XXDIP-B485D330UB27-4F0-XX-W2A-F4

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	66	66	66
1	100	96	92	88	93	90	86	83	78	76	73	68	66	64	58	57	56
2	91	84	77	72	85	78	73	68	69	64	61	60	56	54	51	49	47
3	83	74	66	60	77	69	62	57	61	55	51	53	49	45	45	42	40
4	76	65	57	51	71	61	54	48	54	48	44	47	43	39	41	37	34
5	70	58	50	44	65	55	47	42	48	42	38	42	37	34	37	33	30
6	65	52	44	38	60	49	42	36	43	37	33	38	33	30	33	29	26
7	60	47	39	33	56	45	37	32	39	33	29	35	30	26	30	26	23
8	55	43	35	30	52	41	33	28	36	30	26	32	27	23	28	24	21
9	52	39	32	26	48	37	30	25	33	27	23	29	25	21	26	22	19
10	48	36	29	24	45	34	27	23	31	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

TEST NUMBER: P998443

CATALOG NUMBER: SA2XXDIP-B485D330UB27-4F0-XX-W2A-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	2.2
10°-20°	203.1	6.3
20°-30°	298.4	9.2
30°-40°	346.6	10.7
40°-50°	346.2	10.7
50°-60°	301.9	9.3
60°-70°	223.1	6.9
70°-80°	126.3	3.9
80°-90°	34.5	1.1
90°-100°	74.3	2.3
100°-110°	251.1	7.8
110°-120°	263.9	8.2
120°-130°	217.0	6.7
130°-140°	174.4	5.4
140°-150°	131.7	4.1
150°-160°	92.6	2.9
160°-170°	54.5	1.7
170°-180°	17.7	0.5
0°-30°	573.7	17.8
0°-40°	920.3	28.5
0°-60°	1568.3	48.6
0°-90°	1952.2	60.4
90°-120°	589.2	18.2
90°-150°	1112.4	34.4
90°-180°	1277.0	39.5
0°-180°	3229.5	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	5	12	11	12	3
95°	12	30	138	52	40	13
105°	43	65	261	467	397	46
115°	76	96	218	451	522	75
125°	106	125	210	365	424	94
135°	124	148	208	307	351	96
145°	142	163	206	256	280	89
155°	161	174	200	227	236	74
165°	176	181	192	204	207	49
175°	183	183	185	187	186	17
180°	183	183	183	183	183	

TEST NUMBER: P998443

CATALOG NUMBER: SA2XXDIP-B485D330UB27-4F0-XX-W2A-F4

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°	0.4	4.8	12.0	11.4	11.6
92.5°	5.3	16.8	54.3	25.0	21.5
95°	12.3	30.3	138.1	52.2	40.2
97.5°	18.3	40.0	225.1	104.6	67.3
100°	27.1	49.0	278.3	208.4	126.1
102.5°	35.2	57.0	280.1	352.3	245.9
105°	43.0	64.8	261.1	466.6	397.1
107.5°	51.4	72.6	243.4	508.0	498.9
110°	59.9	80.5	231.5	501.4	540.4



TEST NUMBER: P998443

CATALOG NUMBER: SA2XXDIP-B485D330UB27-4F0-XX-W2A-F4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	67.6	88.1	223.7	478.6	539.7
115°	75.7	95.6	218.4	450.8	522.5
117.5°	84.2	103.2	215.6	424.2	496.4
120°	92.0	110.6	213.1	400.4	471.4
122.5°	99.4	118.2	211.7	381.9	445.3
125°	105.7	125.0	210.0	365.2	423.8
127.5°	111.0	131.6	208.9	350.9	403.7
130°	115.6	137.4	208.2	336.5	387.2
132.5°	119.8	143.0	207.9	321.4	369.9
135°	124.0	148.0	207.5	306.8	351.3
137.5°	127.9	152.2	207.5	292.1	333.3
140°	132.5	156.1	207.2	279.0	314.6
142.5°	137.0	159.2	207.2	266.5	295.9
145°	141.6	162.8	206.5	256.3	280.4
147.5°	146.6	165.6	205.4	247.3	266.7
150°	151.5	168.4	204.3	239.6	254.7
152.5°	156.4	171.2	202.6	233.0	244.5
155°	161.0	173.8	200.5	226.8	235.7
157.5°	164.9	176.0	198.4	220.7	227.9
160°	168.8	178.1	196.2	214.8	220.5
162.5°	172.6	179.7	194.5	209.1	213.5
165°	175.5	180.8	192.0	203.6	206.8
167.5°	177.9	181.8	189.9	198.7	200.5
170°	180.4	182.3	188.1	194.2	194.8
172.5°	181.8	182.8	186.0	190.0	190.2
175°	182.8	183.0	184.6	186.9	186.4
177.5°	183.6	183.2	183.2	184.6	183.6
180°	183.2	183.2	183.2	183.2	183.2

TEST NUMBER: P998443

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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	14.82	15.78	15.68	16.67	17.78	15.60	16.57	16.46	17.45	18.56
	3H	16.17	17.03	17.04	17.92	19.06	17.24	18.10	18.11	18.99	20.13
	4H	16.58	17.39	17.47	18.29	19.44	17.83	18.65	18.72	19.55	20.70
	6H	16.80	17.55	17.70	18.46	19.62	18.24	19.00	19.14	19.90	21.07
	8H	16.83	17.55	17.74	18.47	19.64	18.35	19.07	19.26	20.00	21.16
	12H	16.83	17.51	17.74	18.43	19.62	18.40	19.09	19.32	20.00	21.19
4H	2H	15.30	16.12	16.20	17.02	18.17	15.95	16.76	16.84	17.66	18.81
	3H	16.83	17.51	17.73	18.44	19.61	17.73	18.42	18.64	19.35	20.51
	4H	17.34	17.96	18.26	18.89	20.08	18.42	19.04	19.34	19.97	21.16
	6H	17.65	18.18	18.58	19.13	20.33	18.92	19.46	19.85	20.41	21.60
	8H	17.71	18.21	18.64	19.15	20.36	19.07	19.57	20.00	20.51	21.72
	12H	17.71	18.16	18.66	19.13	20.34	19.13	19.59	20.09	20.55	21.76
8H	4H	17.52	18.02	18.46	18.97	20.17	18.51	19.02	19.45	19.96	21.17
	6H	17.91	18.33	18.87	19.31	20.52	19.09	19.50	20.05	20.49	21.69
	8H	18.01	18.38	18.98	19.36	20.58	19.28	19.65	20.25	20.62	21.84
	12H	18.05	18.37	19.02	19.34	20.61	19.38	19.71	20.35	20.67	21.94
12H	4H	17.51	17.96	18.46	18.92	20.14	18.48	18.94	19.44	19.90	21.11
	6H	17.93	18.30	18.90	19.27	20.49	19.08	19.45	20.05	20.42	21.65
	8H	18.05	18.37	19.02	19.34	20.61	19.28	19.61	20.25	20.57	21.84