

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: P998737

Luminaire Tested: SA2XXDIP-B675D330UB27-4F0-XX-W2A-D4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998737
REPORT IS A COMBINATION OF REPORTS P984483 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D330UB27-4F0-XX-W2A-D4
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

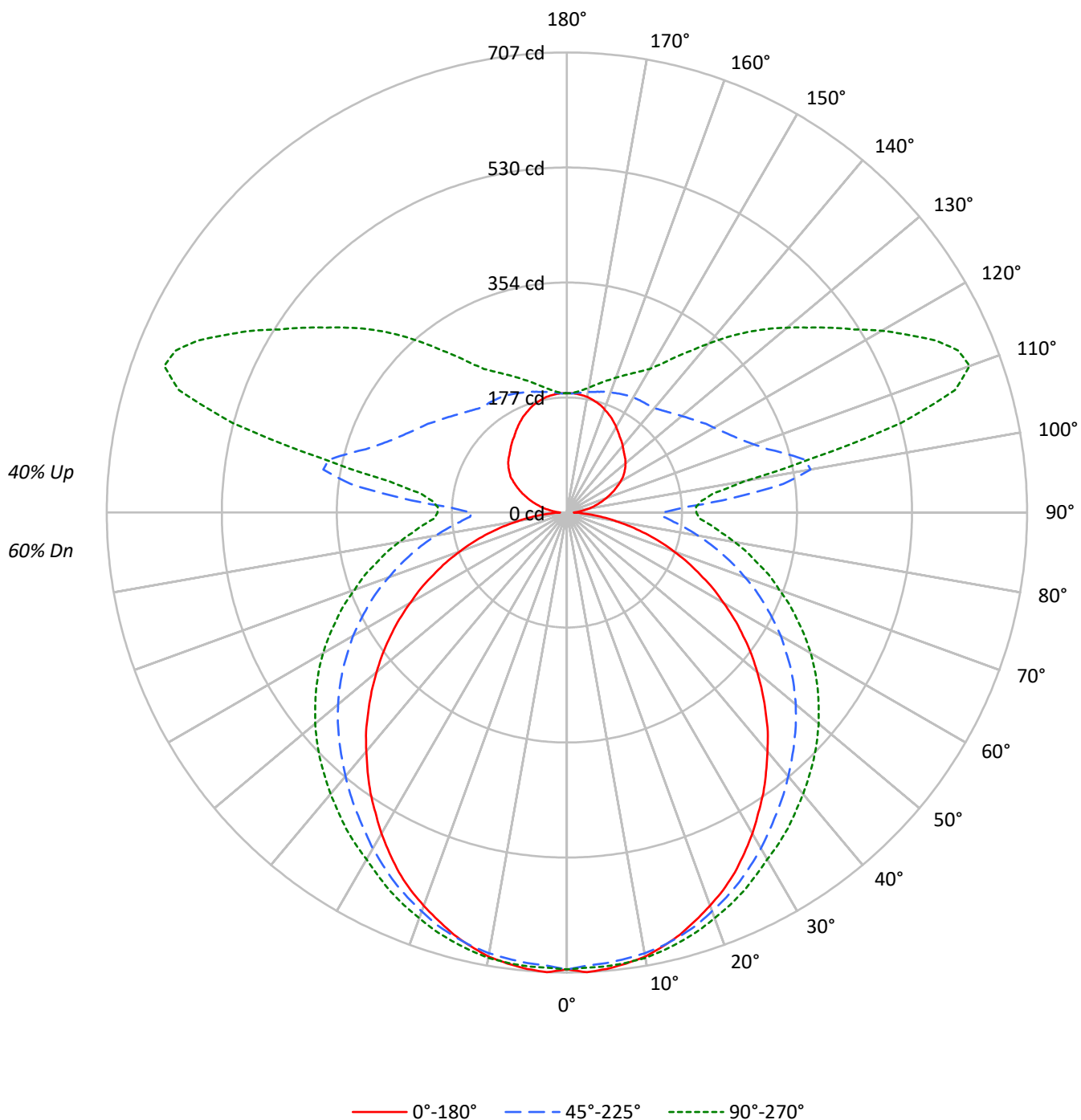
Lumens per Lamp: N/A
Luminaire Lumens: 3957.5 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 45.2
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: P998737

CATALOG NUMBER: SA2XXDIP-B675D330UB27-4F0-XX-W2A-D4

Luminous Intensity Polar Plot



TEST NUMBER: P998737

CATALOG NUMBER: SA2XXDIP-B675D330UB27-4F0-XX-W2A-D4

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	98	93	88	84	91	87	83	79	75	72	69	65	62	60	55	53	52
2	89	80	73	67	82	75	69	64	65	60	56	56	52	49	47	45	42
3	81	70	62	55	75	65	58	52	57	51	46	49	44	41	41	38	35
4	73	62	53	46	68	58	50	44	50	44	39	43	38	34	37	33	30
5	67	55	46	39	62	51	43	37	45	38	33	39	33	29	33	29	26
6	62	49	40	34	57	46	38	32	40	34	29	35	30	26	30	26	22
7	57	44	36	30	53	41	34	28	36	30	25	32	26	23	27	23	20
8	53	40	32	26	49	38	30	25	33	27	22	29	24	20	25	21	18
9	49	37	29	23	46	34	27	22	30	24	20	26	21	18	23	19	16
10	46	33	26	21	43	32	25	20	28	22	18	24	20	16	21	17	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11114	11114	11114
5°	11164	10640	10580
10°	11090	10272	10121
15°	10933	9890	9652
20°	10735	9489	9204
25°	10540	9106	8801
30°	10267	8717	8399
35°	9991	8341	8105
40°	9701	8016	7813
45°	9422	7722	7558
50°	9125	7451	7307
55°	8812	7162	7051
60°	8430	6861	6782
65°	8031	6517	6471
70°	7579	6146	6139
75°	7004	5777	5822
80°	6092	5389	5498
85°	5170	5025	5216

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9422 cd/sqm

TEST NUMBER: P998737

CATALOG NUMBER: SA2XXDIP-B675D330UB27-4F0-XX-W2A-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	1.7
10°-20°	190.9	4.8
20°-30°	289.2	7.3
30°-40°	352.2	8.9
40°-50°	379.0	9.6
50°-60°	368.0	9.3
60°-70°	321.4	8.1
70°-80°	247.4	6.3
80°-90°	166.8	4.2
90°-100°	188.6	4.8
100°-110°	334.5	8.5
110°-120°	319.0	8.1
120°-130°	247.7	6.3
130°-140°	187.3	4.7
140°-150°	133.9	3.4
150°-160°	92.6	2.3
160°-170°	54.5	1.4
170°-180°	17.7	0.4
0°-30°	546.7	13.8
0°-40°	898.9	22.7
0°-60°	1645.9	41.6
0°-90°	2381.5	60.2
90°-120°	842.1	21.3
90°-150°	1411.1	35.7
90°-180°	1576.0	39.8
0°-180°	3957.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	704	701	695	701	700	67
15°	672	674	674	683	682	189
25°	610	618	627	639	642	281
35°	526	543	563	585	592	329
45°	431	459	494	526	536	333
55°	331	367	420	457	470	296
65°	226	276	336	378	391	224
75°	125	182	247	291	304	132
85°	37	100	165	208	222	39
90°	11	74	146	186	199	8
95°	20	86	255	208	208	19
105°	48	99	349	590	531	51
115°	80	111	280	542	625	79
125°	108	127	245	427	495	96
135°	125	149	219	340	392	97
145°	142	163	206	262	292	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: P998737

CATALOG NUMBER: SA2XXDIP-B675D330UB27-4F0-XX-W2A-D4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	702.1	702.1	702.1	702.1	702.1
2.5°	707.2	704.1	697.0	702.1	700.1
5°	704.1	701.1	695.0	701.1	700.1
7.5°	699.1	697.0	691.9	699.1	698.0
10°	693.0	690.9	687.9	696.0	695.0
12.5°	682.8	683.8	681.8	689.9	688.9
15°	671.6	673.6	673.6	682.8	681.8
17.5°	657.3	661.4	664.5	673.6	673.6
20°	643.1	648.2	652.2	663.4	663.4
22.5°	627.8	633.9	640.0	651.2	653.3
25°	610.5	617.7	626.8	639.0	642.1
27.5°	590.2	601.4	611.5	626.8	628.8
30°	569.8	583.1	596.3	612.6	615.6
32.5°	547.4	562.7	579.0	598.3	604.4
35°	526.1	543.4	562.7	585.1	592.2
37.5°	502.7	522.0	546.4	570.8	578.0
40°	479.3	501.7	529.1	555.6	564.7
42.5°	456.9	479.3	511.8	541.3	550.5
45°	431.4	458.9	494.5	526.1	536.2
47.5°	407.0	436.5	477.2	509.8	521.0
50°	381.6	413.1	458.9	493.5	504.7
52.5°	357.2	390.7	439.6	475.2	487.4
55°	330.7	367.3	420.2	456.9	470.1
57.5°	305.3	346.0	398.9	438.6	451.8
60°	277.8	321.5	379.5	418.2	432.5
62.5°	253.4	299.2	357.2	398.9	412.1
65°	225.9	275.8	335.8	377.5	390.7
67.5°	201.5	253.4	314.4	356.1	370.4
70°	175.0	227.9	291.0	334.8	347.0
72.5°	150.6	205.5	269.7	312.4	327.7
75°	125.2	182.1	247.3	291.0	304.2
77.5°	100.7	159.8	225.9	269.7	283.9
80°	76.3	138.4	204.5	247.3	261.5
82.5°	56.0	117.0	184.2	226.9	240.1
85°	36.6	99.7	164.8	207.6	221.8
87.5°	22.4	83.4	148.6	190.3	203.5
90°	10.6	74.0	146.3	186.4	198.8
92.5°	14.5	79.8	179.5	189.8	198.6
95°	20.4	86.3	255.1	207.8	208.1
97.5°	25.4	90.8	335.0	252.2	227.1
100°	34.2	93.8	380.1	347.8	276.7
102.5°	41.3	96.8	374.7	483.6	388.4
105°	48.1	99.4	348.6	589.7	531.4
107.5°	56.5	102.0	323.8	623.0	625.1
110°	64.0	104.9	305.8	608.2	658.4



TEST NUMBER: P998737

CATALOG NUMBER: SA2XXDIP-B675D330UB27-4F0-XX-W2A-D4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	71.7	108.5	290.9	578.3	650.6
115°	79.8	111.0	279.5	542.4	625.3
117.5°	87.3	114.4	269.5	508.6	591.0
120°	95.1	117.8	260.9	476.7	558.9
122.5°	102.5	122.3	253.4	451.1	523.7
125°	107.7	127.0	244.6	427.3	495.0
127.5°	113.0	132.6	237.4	404.8	466.8
130°	117.6	138.4	230.6	383.3	442.1
132.5°	121.8	144.0	224.2	361.2	417.7
135°	125.0	149.0	218.7	339.5	392.0
137.5°	128.9	153.2	213.6	317.5	365.9
140°	133.5	156.1	209.2	297.4	339.0
142.5°	138.0	159.2	207.2	278.7	313.2
145°	141.6	162.8	206.5	262.4	291.6
147.5°	146.6	165.6	205.4	248.3	270.8
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: P998737

CATALOG NUMBER: SA2XXDIP-B675D330UB27-4F0-XX-W2A-D4

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	14.45	15.47	15.30	16.36	17.47	17.52	18.55	18.38	19.43	20.54
	3H	15.92	16.85	16.78	17.74	18.88	20.12	21.05	20.99	21.94	23.08
	4H	16.40	17.28	17.28	18.18	19.33	21.38	22.26	22.26	23.16	24.31
	6H	16.69	17.51	17.58	18.42	19.58	22.69	23.50	23.58	24.41	25.57
	8H	16.75	17.54	17.65	18.46	19.62	23.35	24.13	24.25	25.06	26.22
	12H	16.78	17.53	17.68	18.44	19.63	24.08	24.83	24.99	25.75	26.93
4H	2H	15.51	16.40	16.40	17.30	18.44	17.87	18.75	18.75	19.65	20.80
	3H	17.23	17.98	18.13	18.91	20.08	20.67	21.42	21.57	22.35	23.52
	4H	17.86	18.55	18.77	19.48	20.67	22.09	22.79	23.00	23.71	24.90
	6H	18.29	18.89	19.20	19.84	21.03	23.57	24.18	24.49	25.12	26.31
	8H	18.40	18.97	19.32	19.91	21.11	24.33	24.90	25.25	25.84	27.05
	12H	18.45	18.97	19.39	19.93	21.14	25.17	25.69	26.11	26.65	27.86
8H	4H	18.66	19.23	19.59	20.18	21.38	22.25	22.82	23.17	23.76	24.97
	6H	19.30	19.78	20.25	20.77	21.97	23.89	24.37	24.84	25.35	26.55
	8H	19.53	19.96	20.48	20.93	22.15	24.78	25.21	25.74	26.18	27.40
	12H	19.67	20.05	20.63	21.02	22.28	25.78	26.16	26.74	27.13	28.40
12H	4H	18.87	19.39	19.81	20.35	21.56	22.23	22.75	23.18	23.71	24.92
	6H	19.64	20.07	20.60	21.04	22.26	23.91	24.34	24.87	25.32	26.53
	8H	19.95	20.33	20.91	21.30	22.57	24.85	25.23	25.81	26.20	27.47