

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: P998735

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

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998735
REPORT IS A COMBINATION OF REPORTS P984481 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D330UB27-4F0-XX-W2A-D
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

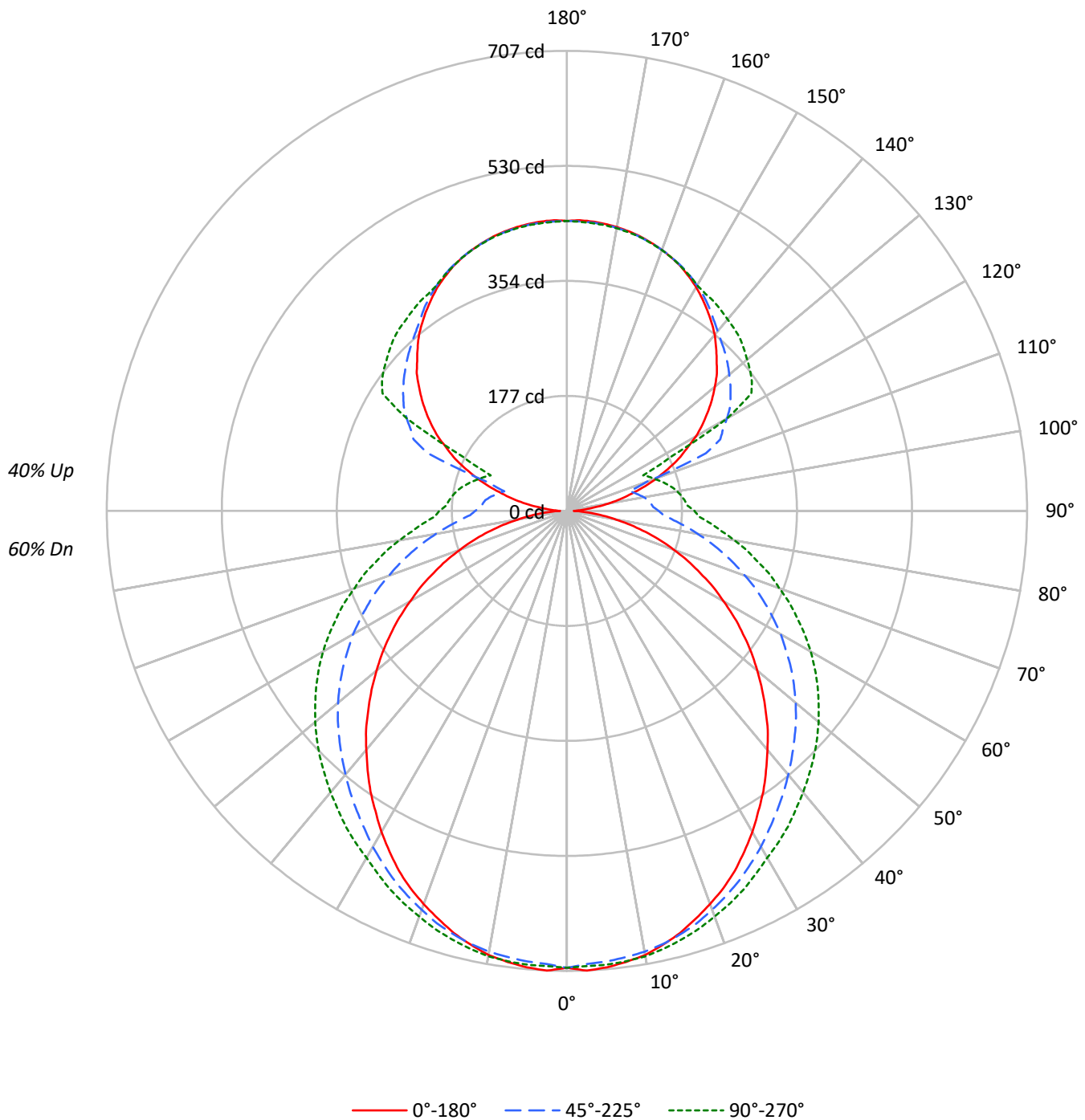
Lumens per Lamp: N/A
Luminaire Lumens: 3986.0 lumens
Efficiency: N/A
Efficacy: 88.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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: P998735

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

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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65
1	98	93	88	84	91	87	83	79	75	72	69	65	62	60	55	53	51
2	89	80	73	67	82	75	69	63	65	60	56	56	52	49	47	44	42
3	80	70	62	55	75	65	58	52	57	51	46	49	44	40	41	38	35
4	73	62	53	46	68	58	50	44	50	44	39	43	38	34	36	33	30
5	67	55	46	39	62	51	43	37	45	38	33	38	33	29	33	29	25
6	62	49	40	34	57	46	38	32	40	34	29	35	29	26	30	25	22
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	27	23	20
8	53	40	32	26	49	38	30	25	33	27	22	29	24	20	25	21	17
9	49	36	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: P998735

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

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	8.8
40°-50°	379.0	9.5
50°-60°	368.0	9.2
60°-70°	321.4	8.1
70°-80°	247.4	6.2
80°-90°	166.5	4.2
90°-100°	129.0	3.2
100°-110°	138.2	3.5
110°-120°	200.4	5.0
120°-130°	271.6	6.8
130°-140°	268.8	6.7
140°-150°	240.0	6.0
150°-160°	191.2	4.8
160°-170°	123.2	3.1
170°-180°	42.4	1.1
0°-30°	546.7	13.7
0°-40°	898.9	22.6
0°-60°	1645.9	41.3
0°-90°	2381.1	59.7
90°-120°	467.6	11.7
90°-150°	1248.0	31.3
90°-180°	1605.0	40.3
0°-180°	3986.0	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°	10	73	141	183	196	8
95°	29	66	130	170	182	31
105°	103	142	107	146	159	111
115°	190	206	260	141	129	186
125°	264	268	307	337	347	236
135°	325	330	344	368	376	252
145°	376	376	381	390	393	236
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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CATALOG NUMBER: SA2XXDIP-B675D330UB27-4F0-XX-W2A-D

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°	10.5	73.1	140.7	183.1	195.9
92.5°	17.3	69.9	132.9	173.2	185.8
95°	29.1	66.3	129.6	169.9	181.8
97.5°	44.8	62.2	126.3	164.9	177.5
100°	64.2	57.7	120.2	160.4	172.2
102.5°	84.4	117.4	113.6	153.9	166.0
105°	103.1	142.3	107.2	146.3	158.8
107.5°	126.0	158.5	100.7	138.9	151.3
110°	146.9	174.0	130.7	131.0	143.5



TEST NUMBER: P998735

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

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	167.6	189.7	231.0	124.5	136.7
115°	189.5	206.2	260.0	141.2	129.2
117.5°	207.5	222.0	270.2	254.7	180.4
120°	228.8	237.6	284.1	316.5	284.2
122.5°	246.8	253.0	297.0	326.5	336.0
125°	264.1	268.3	307.0	336.8	346.9
127.5°	280.9	284.4	316.7	345.3	354.9
130°	296.7	300.8	325.8	353.7	361.5
132.5°	312.8	316.0	334.8	361.1	368.9
135°	325.3	330.5	343.6	368.2	375.7
137.5°	339.5	343.4	351.7	374.2	380.5
140°	353.4	355.0	360.5	379.7	384.2
142.5°	365.0	366.2	370.4	385.2	388.7
145°	376.2	375.9	381.4	389.8	393.2
147.5°	386.9	385.9	391.4	394.0	395.8
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	14.41	15.43	15.27	16.32	17.44	17.49	18.51	18.34	19.39	20.52
	3H	15.88	16.81	16.75	17.70	18.85	20.09	21.01	20.95	21.91	23.05
	4H	16.36	17.24	17.25	18.15	19.30	21.34	22.22	22.23	23.13	24.28
	6H	16.66	17.47	17.55	18.38	19.55	22.65	23.46	23.54	24.37	25.54
	8H	16.72	17.50	17.62	18.43	19.59	23.31	24.09	24.22	25.02	26.19
	12H	16.74	17.49	17.65	18.41	19.60	24.04	24.79	24.95	25.71	26.90
4H	2H	15.48	16.36	16.37	17.26	18.41	17.83	18.71	18.72	19.61	20.77
	3H	17.20	17.94	18.10	18.88	20.05	20.64	21.38	21.54	22.32	23.49
	4H	17.83	18.51	18.74	19.44	20.64	22.06	22.75	22.97	23.67	24.87
	6H	18.25	18.85	19.17	19.80	21.00	23.53	24.14	24.46	25.09	26.28
	8H	18.36	18.93	19.29	19.87	21.08	24.30	24.86	25.22	25.81	27.02
	12H	18.41	18.93	19.36	19.89	21.11	25.13	25.65	26.08	26.61	27.83
8H	4H	18.63	19.19	19.55	20.14	21.35	22.22	22.78	23.14	23.73	24.94
	6H	19.27	19.74	20.22	20.73	21.94	23.85	24.33	24.80	25.31	26.52
	8H	19.49	19.92	20.45	20.89	22.12	24.74	25.17	25.70	26.14	27.37
	12H	19.63	20.01	20.60	20.98	22.25	25.74	26.12	26.71	27.09	28.37
12H	4H	18.83	19.35	19.78	20.31	21.53	22.20	22.71	23.14	23.68	24.89
	6H	19.60	20.03	20.56	21.01	22.23	23.88	24.30	24.84	25.28	26.51
	8H	19.92	20.29	20.88	21.27	22.54	24.81	25.19	25.78	26.16	27.44