

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: P930801

Luminaire Tested: DFN2DS-SQ2F0-030DS850-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930801
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-SQ2F0-030DS850-FLL
Description: 2 foot, Square Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

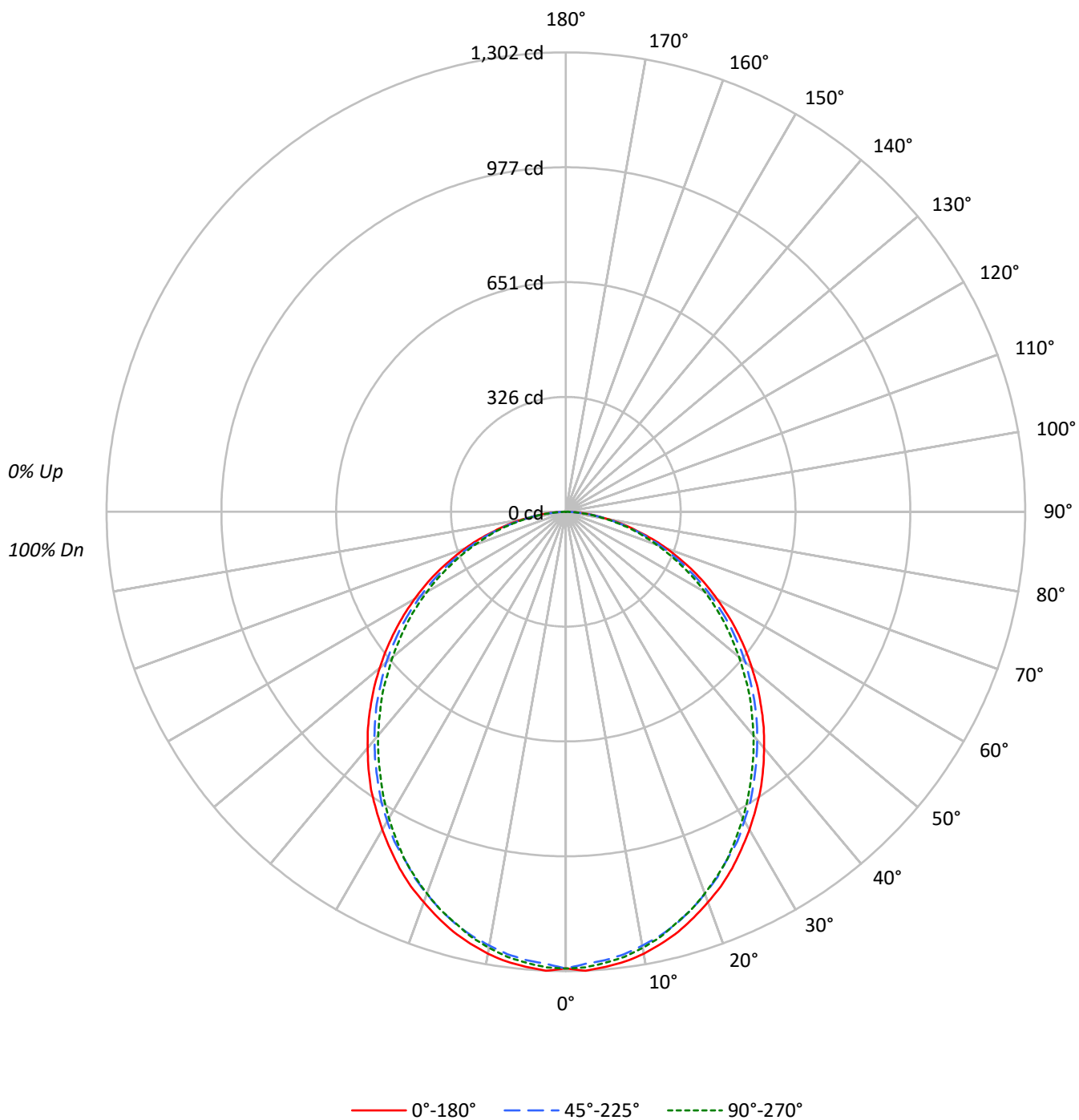
Lumens per Lamp: N/A
Luminaire Lumens: 3293.8 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.21' x L: 2.21' x H: 0')
CIE Type: Direct

Input Watts (W): 26.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9963
Total Harmonic Distortion (THDi): 0.065
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930801

CATALOG NUMBER: DFN2DS-SQ2F0-030DS850-FLL

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2846	2846	2846
5°	2857	2816	2833
10°	2841	2788	2802
15°	2805	2752	2749
20°	2755	2697	2695
25°	2706	2631	2631
30°	2642	2570	2547
35°	2583	2496	2459
40°	2508	2422	2376
45°	2435	2350	2292
50°	2355	2274	2193
55°	2272	2186	2105
60°	2179	2081	2004
65°	2080	1976	1885
70°	1953	1849	1761
75°	1776	1703	1661
80°	1577	1528	1451
85°	1287	1226	1100

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 2435 cd/sqm

TEST NUMBER: P930801

CATALOG NUMBER: DFN2DS-SQ2F0-030DS850-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.8	3.7
10°-20°	342.8	10.4
20°-30°	503.8	15.3
30°-40°	585.2	17.8
40°-50°	584.4	17.7
50°-60°	509.6	15.5
60°-70°	376.7	11.4
70°-80°	213.1	6.5
80°-90°	56.3	1.7
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°	968.5	29.4
0°-40°	1553.6	47.2
0°-60°	2647.7	80.4
0°-90°	3293.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3293.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1294	1290	1276	1286	1283	123
15°	1232	1225	1209	1214	1208	347
25°	1115	1106	1084	1087	1084	513
35°	962	950	930	922	916	601
45°	783	774	756	742	737	604
55°	593	585	570	555	549	530
65°	400	392	380	368	362	395
75°	209	207	200	193	196	223
85°	51	50	49	45	44	60
90°	0	0	0	0	0	

TEST NUMBER: P930801

CATALOG NUMBER: DFN2DS-SQ2F0-030DS850-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1294.5	1294.5	1294.5	1294.5	1294.5
2.5°	1302.1	1295.9	1282.1	1294.5	1292.2
5°	1294.5	1289.7	1275.9	1285.9	1283.4
7.5°	1285.9	1278.5	1264.7	1274.8	1272.2
10°	1272.2	1263.5	1248.6	1258.5	1254.8
12.5°	1253.5	1246.1	1231.2	1237.3	1234.9
15°	1232.3	1225.0	1208.7	1213.7	1207.5
17.5°	1206.1	1198.8	1182.5	1188.7	1182.5
20°	1177.5	1170.1	1152.7	1156.4	1151.5
22.5°	1149.0	1137.8	1121.5	1121.5	1119.0
25°	1115.3	1105.5	1084.3	1086.7	1084.3
27.5°	1077.9	1069.2	1053.1	1049.4	1043.2
30°	1040.7	1030.7	1012.1	1008.3	1003.3
32.5°	1000.9	993.4	973.5	965.9	960.9
35°	962.3	949.9	929.9	922.4	916.1
37.5°	918.7	907.5	887.5	878.8	872.6
40°	873.9	863.9	843.9	832.9	827.9
42.5°	830.3	820.3	800.5	787.9	780.5
45°	783.1	774.3	755.6	741.9	736.9
47.5°	736.9	728.3	708.3	694.6	687.1
50°	688.4	682.1	664.7	647.3	641.1
52.5°	641.1	632.4	616.3	602.5	593.8
55°	592.6	585.1	570.1	555.3	549.1
57.5°	544.0	537.8	521.6	506.6	501.6
60°	495.4	490.5	473.1	459.3	455.7
62.5°	448.1	439.4	427.0	414.5	409.6
65°	399.7	392.1	379.7	368.5	362.3
67.5°	349.9	343.6	332.4	323.7	318.7
70°	303.8	298.8	287.6	278.8	273.9
72.5°	256.5	251.4	245.2	236.5	232.9
75°	209.0	206.7	200.4	193.0	195.5
77.5°	166.8	161.8	159.3	155.6	151.9
80°	124.5	123.2	120.7	117.0	114.6
82.5°	84.6	84.6	83.5	78.4	78.4
85°	51.0	49.8	48.6	44.8	43.6
87.5°	22.4	20.0	17.4	13.8	12.4
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	14.92	16.53	15.28	16.84	17.16	14.47	16.08	14.84	16.40	16.71
	3H	16.67	18.12	17.04	18.45	18.81	16.18	17.63	16.55	17.96	18.32
	4H	17.31	18.68	17.71	19.03	19.41	16.82	18.19	17.22	18.54	18.91
	6H	17.78	19.05	18.19	19.42	19.81	17.28	18.55	17.69	18.91	19.31
	8H	17.93	19.14	18.35	19.53	19.92	17.42	18.63	17.85	19.02	19.42
	12H	18.02	19.18	18.45	19.56	19.99	17.50	18.66	17.93	19.05	19.47
4H	2H	15.48	16.85	15.88	17.19	17.57	15.12	16.49	15.52	16.84	17.22
	3H	17.45	18.60	17.86	19.00	19.40	17.05	18.19	17.46	18.59	18.99
	4H	18.23	19.27	18.66	19.68	20.12	17.81	18.84	18.24	19.26	19.69
	6H	18.83	19.73	19.28	20.17	20.63	18.39	19.30	18.85	19.74	20.20
	8H	19.02	19.86	19.48	20.30	20.77	18.58	19.42	19.04	19.87	20.33
	12H	19.15	19.91	19.63	20.38	20.85	18.70	19.46	19.18	19.93	20.40
8H	4H	18.50	19.35	18.96	19.79	20.26	18.13	18.98	18.59	19.42	19.88
	6H	19.22	19.92	19.71	20.41	20.88	18.84	19.54	19.33	20.03	20.50
	8H	19.48	20.11	19.99	20.61	21.10	19.08	19.72	19.59	20.22	20.71
	12H	19.68	20.23	20.18	20.72	21.29	19.26	19.82	19.77	20.31	20.87
12H	4H	18.53	19.29	19.01	19.76	20.23	18.16	18.92	18.64	19.40	19.87
	6H	19.26	19.89	19.77	20.40	20.89	18.89	19.53	19.40	20.03	20.52
	8H	19.58	20.13	20.08	20.62	21.19	19.20	19.76	19.71	20.25	20.81

END OF REPORT