

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: P930825

Luminaire Tested: DFN2DS-SQ2F0-040DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930825
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-SQ2F0-040DS935-FLL
Description: 2 foot, Square Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

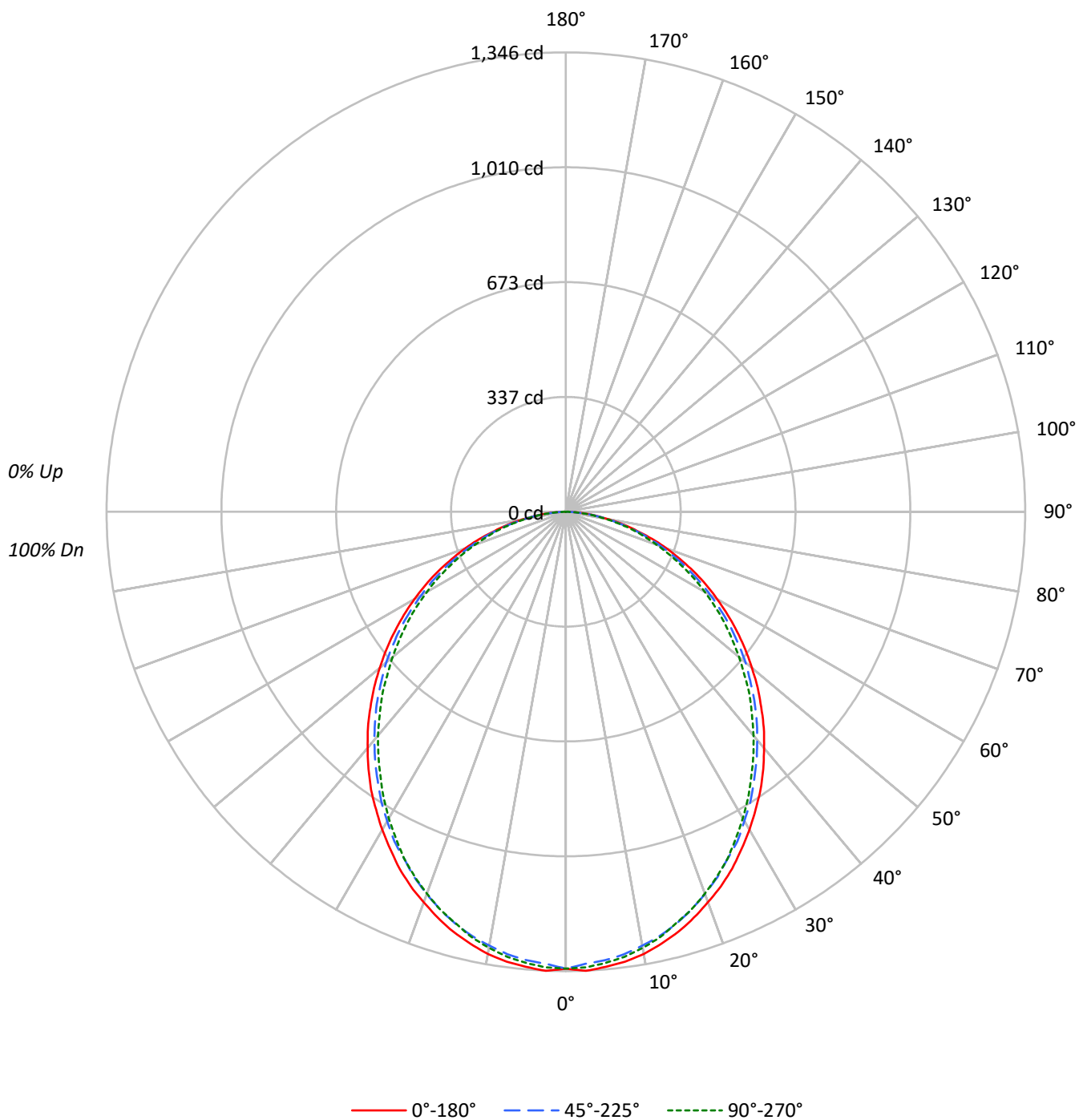
Lumens per Lamp: N/A
Luminaire Lumens: 3405.6 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.21' x L: 2.21' x H: 0')
CIE Type: Direct

Input Watts (W): 37.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9952
Total Harmonic Distortion (THDi): 0.069
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930825

CATALOG NUMBER: DFN2DS-SQ2F0-040DS935-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P930825

CATALOG NUMBER: DFN2DS-SQ2F0-040DS935-FLL

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°	2943	2943	2943
5°	2954	2912	2929
10°	2937	2883	2897
15°	2901	2845	2842
20°	2849	2789	2786
25°	2798	2720	2720
30°	2732	2657	2634
35°	2671	2581	2543
40°	2594	2505	2457
45°	2518	2429	2370
50°	2435	2351	2267
55°	2349	2260	2176
60°	2253	2151	2072
65°	2150	2043	1949
70°	2019	1911	1821
75°	1837	1760	1717
80°	1630	1580	1499
85°	1330	1267	1138

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2518 cd/sqm

TEST NUMBER: P930825

CATALOG NUMBER: DFN2DS-SQ2F0-040DS935-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.0	3.7
10°-20°	354.5	10.4
20°-30°	520.9	15.3
30°-40°	605.0	17.8
40°-50°	604.3	17.7
50°-60°	526.9	15.5
60°-70°	389.5	11.4
70°-80°	220.4	6.5
80°-90°	58.2	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°	1001.4	29.4
0°-40°	1606.4	47.2
0°-60°	2737.6	80.4
0°-90°	3405.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3405.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1338	1338	1338	1338	1338	
5°	1338	1333	1319	1330	1327	127
15°	1274	1266	1250	1255	1248	359
25°	1153	1143	1121	1124	1121	531
35°	995	982	962	954	947	621
45°	810	801	781	767	762	625
55°	613	605	590	574	568	548
65°	413	405	393	381	375	409
75°	216	214	207	200	202	231
85°	53	52	50	46	45	62
90°	0	0	0	0	0	

TEST NUMBER: P930825

CATALOG NUMBER: DFN2DS-SQ2F0-040DS935-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1338.5	1338.5	1338.5	1338.5	1338.5
2.5°	1346.3	1339.9	1325.7	1338.5	1336.1
5°	1338.5	1333.4	1319.2	1329.5	1327.1
7.5°	1329.5	1321.8	1307.6	1318.0	1315.5
10°	1315.5	1306.4	1291.0	1301.3	1297.4
12.5°	1296.0	1288.4	1273.0	1279.4	1276.8
15°	1274.2	1266.5	1249.8	1254.9	1248.5
17.5°	1247.2	1239.5	1222.7	1229.1	1222.7
20°	1217.5	1209.8	1191.9	1195.7	1190.7
22.5°	1188.0	1176.4	1159.6	1159.6	1157.0
25°	1153.2	1142.9	1121.1	1123.6	1121.1
27.5°	1114.6	1105.5	1088.9	1085.1	1078.7
30°	1076.0	1065.7	1046.4	1042.6	1037.4
32.5°	1034.8	1027.2	1006.5	998.8	993.6
35°	994.9	982.1	961.5	953.7	947.3
37.5°	949.9	938.3	917.6	908.7	902.2
40°	903.6	893.2	872.6	861.1	856.0
42.5°	858.5	848.1	827.7	814.7	807.0
45°	809.6	800.7	781.2	767.2	762.0
47.5°	762.0	752.9	732.4	718.2	710.5
50°	711.7	705.3	687.3	669.3	662.8
52.5°	662.8	653.9	637.2	623.0	614.0
55°	612.8	604.9	589.5	574.0	567.7
57.5°	562.4	556.1	539.2	523.8	518.7
60°	512.2	507.1	489.2	475.0	471.1
62.5°	463.4	454.3	441.5	428.6	423.5
65°	413.2	405.4	392.6	381.0	374.6
67.5°	361.7	355.2	343.7	334.7	329.6
70°	314.1	308.9	297.3	288.3	283.2
72.5°	265.2	260.0	253.6	244.6	240.7
75°	216.2	213.7	207.2	199.5	202.1
77.5°	172.4	167.3	164.7	160.8	157.0
80°	128.7	127.4	124.8	121.0	118.4
82.5°	87.5	87.5	86.3	81.1	81.1
85°	52.7	51.5	50.2	46.3	45.1
87.5°	23.2	20.6	18.1	14.2	12.8
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930825

CATALOG NUMBER: DFN2DS-SQ2F0-040DS935-FLL

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	15.03	16.64	15.40	16.96	17.27	14.59	16.20	14.95	16.51	16.83
	3H	16.78	18.24	17.16	18.56	18.93	16.29	17.75	16.67	18.07	18.43
	4H	17.43	18.80	17.83	19.15	19.52	16.93	18.30	17.33	18.65	19.03
	6H	17.90	19.17	18.31	19.53	19.92	17.40	18.67	17.81	19.03	19.42
	8H	18.04	19.25	18.47	19.64	20.04	17.54	18.75	17.96	19.14	19.54
	12H	18.13	19.29	18.56	19.67	20.10	17.62	18.78	18.05	19.16	19.59
4H	2H	15.59	16.96	15.99	17.31	17.69	15.24	16.61	15.64	16.96	17.33
	3H	17.57	18.72	17.98	19.11	19.51	17.16	18.31	17.57	18.71	19.11
	4H	18.35	19.38	18.78	19.79	20.23	17.92	18.96	18.35	19.37	19.81
	6H	18.94	19.85	19.40	20.29	20.74	18.51	19.41	18.96	19.85	20.31
	8H	19.13	19.98	19.59	20.42	20.89	18.69	19.54	19.15	19.98	20.45
	12H	19.26	20.02	19.74	20.50	20.97	18.81	19.57	19.29	20.05	20.52
8H	4H	18.62	19.47	19.08	19.91	20.37	18.24	19.09	18.71	19.53	20.00
	6H	19.33	20.04	19.83	20.52	21.00	18.95	19.65	19.45	20.14	20.62
	8H	19.59	20.22	20.10	20.73	21.22	19.20	19.83	19.71	20.34	20.82
	12H	19.79	20.35	20.30	20.84	21.40	19.38	19.94	19.89	20.43	20.99
12H	4H	18.64	19.40	19.12	19.88	20.35	18.28	19.04	18.76	19.52	19.99
	6H	19.38	20.01	19.89	20.52	21.00	19.01	19.64	19.52	20.15	20.63
	8H	19.69	20.25	20.20	20.74	21.30	19.31	19.87	19.82	20.36	20.92