

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: P929926

Luminaire Tested: DFN2DS-4P3F0-060DS935-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P929926
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-4P3F0-060DS935-RLL
Description: 3 foot, 90deg - 4way Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

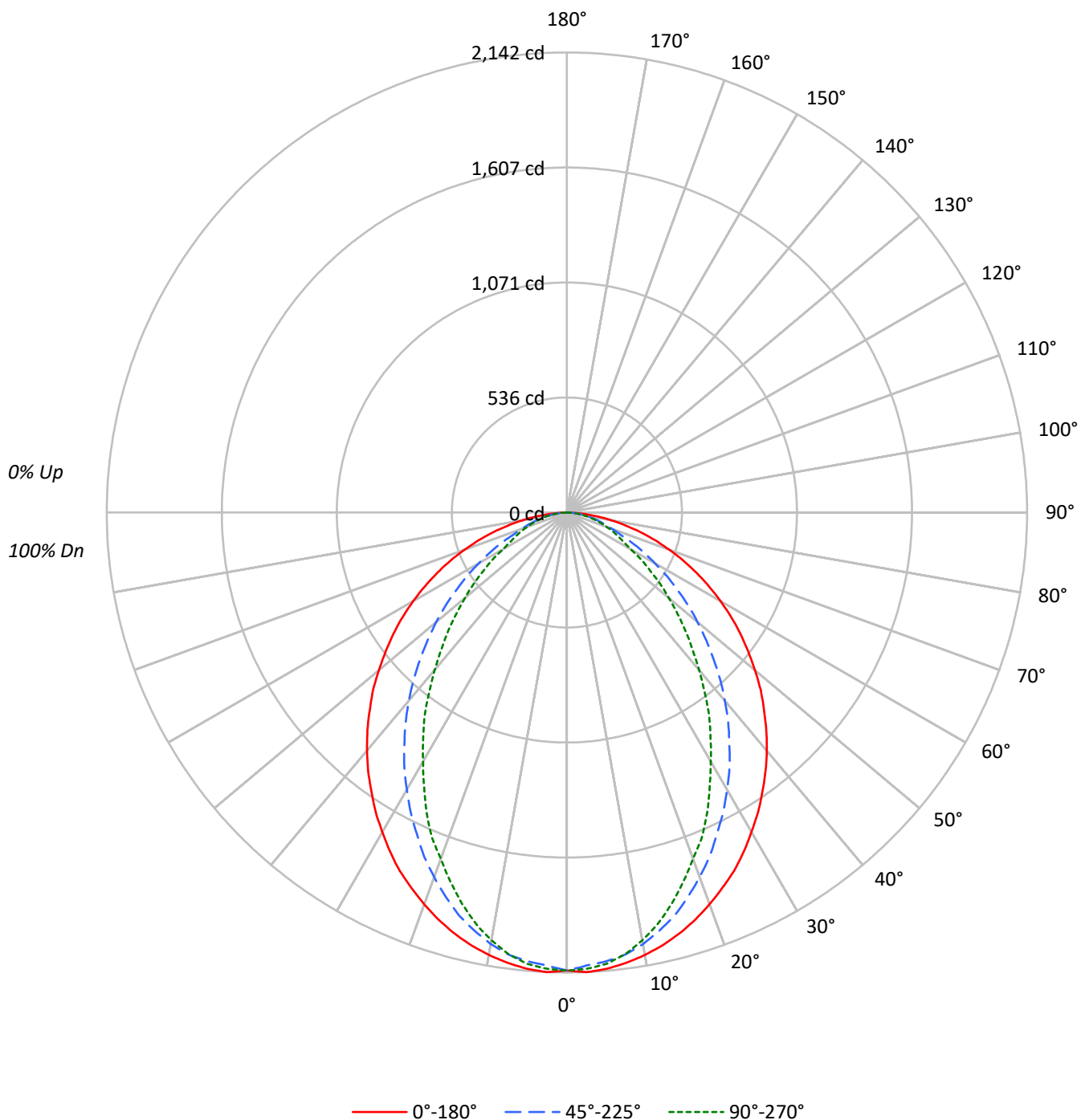
Lumens per Lamp: N/A
Luminaire Lumens: 4386.0 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.07' x L: 3.07' x H: 0')
CIE Type: Direct

Input Watts (W): 65
Input Voltage (V):
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

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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	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2430	2430	2430
5°	2440	2400	2413
10°	2421	2361	2341
15°	2393	2291	2225
20°	2355	2191	2081
25°	2315	2077	1941
30°	2260	1961	1763
35°	2207	1834	1605
40°	2153	1702	1424
45°	2090	1555	1260
50°	2026	1406	1098
55°	1959	1246	943
60°	1883	1078	783
65°	1796	905	713
70°	1691	746	656
75°	1564	680	612
80°	1380	607	558
85°	1084	479	479

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2090 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.9	4.6
10°-20°	548.7	12.5
20°-30°	770.3	17.6
30°-40°	839.7	19.1
40°-50°	771.8	17.6
50°-60°	606.1	13.8
60°-70°	394.5	9.0
70°-80°	203.1	4.6
80°-90°	51.8	1.2
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°	1518.9	34.6
0°-40°	2358.6	53.8
0°-60°	3736.5	85.2
0°-90°	4386.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4386.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2133	2133	2133	2133	2133	
5°	2133	2123	2098	2115	2110	202
15°	2028	2007	1942	1905	1886	572
25°	1841	1779	1652	1573	1544	847
35°	1586	1488	1318	1197	1154	993
45°	1297	1168	965	828	782	1002
55°	986	836	627	512	475	881
65°	666	510	336	270	264	660
75°	355	220	154	141	139	376
85°	83	42	37	37	37	99
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2132.6	2132.6	2132.6	2132.6	2132.6
2.5°	2142.3	2132.6	2111.3	2130.7	2126.9
5°	2132.6	2123.0	2097.8	2115.3	2109.5
7.5°	2115.3	2103.7	2076.7	2084.3	2074.7
10°	2092.0	2078.5	2040.1	2034.2	2022.6
12.5°	2063.2	2045.8	1993.6	1982.1	1960.8
15°	2028.4	2007.1	1941.5	1904.9	1885.6
17.5°	1987.9	1956.9	1875.8	1833.4	1802.6
20°	1941.5	1902.8	1806.4	1758.3	1715.7
22.5°	1891.4	1846.9	1735.0	1669.4	1640.5
25°	1841.3	1779.4	1652.1	1573.0	1544.0
27.5°	1781.5	1715.7	1574.8	1484.1	1439.7
30°	1717.8	1644.2	1489.9	1391.6	1339.4
32.5°	1655.9	1567.1	1409.0	1293.1	1244.8
35°	1586.5	1488.1	1318.3	1196.6	1154.0
37.5°	1518.9	1412.6	1233.3	1100.0	1051.9
40°	1447.5	1331.8	1144.4	1007.4	957.3
42.5°	1374.2	1250.7	1055.7	912.8	864.7
45°	1297.0	1167.5	965.1	827.8	781.6
47.5°	1223.7	1086.7	878.2	741.1	698.7
50°	1142.6	1005.6	793.3	660.0	619.6
52.5°	1063.3	918.6	712.2	584.8	548.2
55°	986.2	835.7	627.2	511.5	474.8
57.5°	907.1	752.7	552.0	443.9	413.0
60°	826.0	671.7	472.8	374.5	343.6
62.5°	747.0	592.6	405.2	312.7	297.3
65°	665.9	509.5	335.8	270.3	264.4
67.5°	588.7	432.2	270.3	237.4	231.6
70°	507.6	357.1	223.8	204.6	196.8
72.5°	430.4	287.5	187.1	171.8	167.9
75°	355.1	219.9	154.4	140.9	139.1
77.5°	279.9	156.3	121.6	113.9	110.0
80°	210.3	112.0	92.5	85.0	85.0
82.5°	146.6	75.3	63.6	59.8	59.8
85°	82.9	42.4	36.6	36.6	36.6
87.5°	31.0	15.4	15.4	13.5	13.5
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	14.32	15.84	14.68	16.16	16.47	10.28	11.80	10.65	12.12	12.43
	3H	16.09	17.45	16.46	17.78	18.14	11.55	12.91	11.92	13.24	13.60
	4H	16.75	18.03	17.15	18.38	18.76	12.05	13.33	12.45	13.68	14.06
	6H	17.24	18.42	17.65	18.79	19.18	12.43	13.61	12.84	13.98	14.37
	8H	17.41	18.53	17.83	18.92	19.32	12.55	13.68	12.98	14.07	14.47
	12H	17.51	18.59	17.94	18.97	19.40	12.63	13.71	13.06	14.09	14.52
4H	2H	14.42	15.70	14.82	16.05	16.43	10.98	12.26	11.38	12.61	12.98
	3H	16.36	17.42	16.77	17.82	18.22	12.42	13.48	12.83	13.88	14.28
	4H	17.11	18.06	17.54	18.48	18.92	13.02	13.98	13.45	14.39	14.83
	6H	17.70	18.53	18.16	18.97	19.43	13.51	14.34	13.96	14.78	15.24
	8H	17.91	18.69	18.38	19.13	19.60	13.67	14.45	14.13	14.89	15.36
	12H	18.07	18.76	18.55	19.24	19.71	13.79	14.48	14.27	14.96	15.43
8H	4H	17.13	17.91	17.59	18.35	18.82	13.37	14.15	13.84	14.59	15.06
	6H	17.77	18.41	18.27	18.90	19.38	13.96	14.60	14.46	15.09	15.57
	8H	18.02	18.60	18.53	19.10	19.59	14.18	14.76	14.69	15.27	15.76
	12H	18.22	18.73	18.73	19.22	19.79	14.36	14.87	14.87	15.36	15.93
12H	4H	17.12	17.81	17.60	18.29	18.76	13.42	14.11	13.90	14.59	15.06
	6H	17.75	18.33	18.26	18.84	19.32	14.02	14.60	14.54	15.11	15.60
	8H	18.03	18.54	18.54	19.04	19.60	14.30	14.81	14.81	15.30	15.86

END OF REPORT