

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: P931293

Luminaire Tested: DFN2DS-TR2F0-050DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931293
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-TR2F0-050DS935-FLL
Description: 2 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

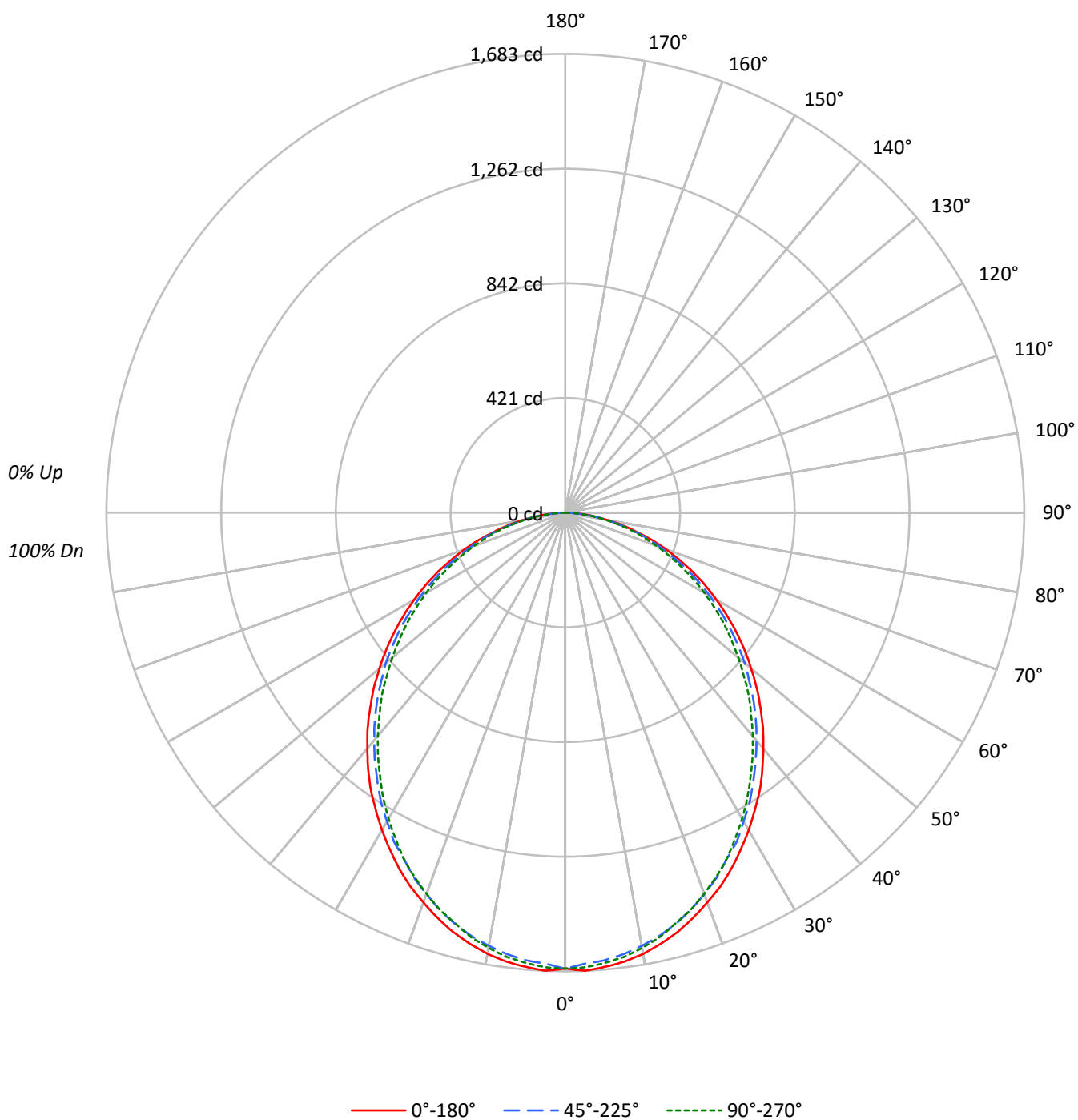
Lumens per Lamp: N/A
Luminaire Lumens: 4257.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.36' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 49.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9789
Total Harmonic Distortion (THDi): 0.074
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P931293

CATALOG NUMBER: DFN2DS-TR2F0-050DS935-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°	3732	3732	3732
5°	3746	3692	3714
10°	3724	3655	3673
15°	3678	3607	3604
20°	3612	3536	3533
25°	3548	3449	3449
30°	3464	3369	3340
35°	3386	3272	3224
40°	3289	3176	3115
45°	3192	3080	3004
50°	3087	2981	2875
55°	2978	2865	2759
60°	2856	2728	2627
65°	2726	2590	2471
70°	2560	2423	2309
75°	2329	2231	2178
80°	2068	2004	1901
85°	1686	1607	1441

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 3192 cd/sqm

TEST NUMBER: P931293

CATALOG NUMBER: DFN2DS-TR2F0-050DS935-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.5	3.7
10°-20°	443.1	10.4
20°-30°	651.1	15.3
30°-40°	756.3	17.8
40°-50°	755.3	17.7
50°-60°	658.6	15.5
60°-70°	486.9	11.4
70°-80°	275.5	6.5
80°-90°	72.7	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°	1251.7	29.4
0°-40°	2008.0	47.2
0°-60°	3421.9	80.4
0°-90°	4257.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4257.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1673	1673	1673	1673	1673	
5°	1673	1667	1649	1662	1659	159
15°	1593	1583	1562	1569	1561	449
25°	1442	1429	1401	1404	1401	663
35°	1244	1228	1202	1192	1184	777
45°	1012	1001	976	959	952	781
55°	766	756	737	718	710	685
65°	516	507	491	476	468	511
75°	270	267	259	249	253	288
85°	66	64	63	58	56	77
90°	0	0	0	0	0	

TEST NUMBER: P931293

CATALOG NUMBER: DFN2DS-TR2F0-050DS935-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1673.1	1673.1	1673.1	1673.1	1673.1
2.5°	1682.8	1674.8	1657.1	1673.1	1670.1
5°	1673.1	1666.9	1649.0	1661.9	1658.9
7.5°	1661.9	1652.3	1634.6	1647.6	1644.3
10°	1644.3	1633.1	1613.8	1626.5	1621.8
12.5°	1620.1	1610.5	1591.3	1599.3	1596.0
15°	1592.7	1583.2	1562.2	1568.7	1560.6
17.5°	1558.9	1549.4	1528.4	1536.4	1528.4
20°	1521.9	1512.4	1489.9	1494.6	1488.3
22.5°	1485.0	1470.5	1449.5	1449.5	1446.3
25°	1441.5	1428.7	1401.4	1404.5	1401.4
27.5°	1393.2	1381.9	1361.1	1356.3	1348.3
30°	1345.0	1332.1	1308.1	1303.2	1296.8
32.5°	1293.5	1284.0	1258.2	1248.5	1242.0
35°	1243.6	1227.6	1201.8	1192.1	1184.1
37.5°	1187.3	1172.9	1147.1	1135.8	1127.8
40°	1129.5	1116.5	1090.7	1076.4	1069.9
42.5°	1073.2	1060.2	1034.6	1018.3	1008.8
45°	1012.0	1000.8	976.5	959.0	952.4
47.5°	952.4	941.2	915.5	897.7	888.1
50°	889.7	881.7	859.1	836.6	828.5
52.5°	828.5	817.3	796.4	778.7	767.5
55°	765.9	756.2	736.8	717.6	709.6
57.5°	703.0	695.1	674.1	654.8	648.3
60°	640.3	634.0	611.5	593.7	588.9
62.5°	579.2	567.9	551.9	535.8	529.3
65°	516.5	506.8	490.7	476.3	468.2
67.5°	452.2	444.0	429.7	418.4	411.9
70°	392.6	386.1	371.6	360.3	354.1
72.5°	331.5	325.0	317.0	305.7	300.9
75°	270.2	267.1	258.9	249.4	252.7
77.5°	215.6	209.1	205.9	201.1	196.3
80°	161.0	159.3	156.0	151.3	148.0
82.5°	109.4	109.4	107.8	101.4	101.4
85°	65.9	64.3	62.8	57.9	56.3
87.5°	29.0	25.8	22.5	17.7	16.1
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931293

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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	15.86	17.47	16.22	17.78	18.10	15.41	17.02	15.78	17.34	17.65
	3H	17.61	19.06	17.99	19.39	19.75	17.12	18.57	17.49	18.90	19.26
	4H	18.25	19.62	18.65	19.97	20.35	17.76	19.13	18.16	19.48	19.85
	6H	18.72	19.99	19.13	20.36	20.75	18.22	19.49	18.63	19.86	20.25
	8H	18.87	20.08	19.29	20.47	20.87	18.36	19.57	18.79	19.96	20.36
	12H	18.96	20.12	19.39	20.50	20.93	18.44	19.61	18.87	19.99	20.42
4H	2H	16.42	17.79	16.82	18.14	18.51	16.07	17.43	16.46	17.78	18.16
	3H	18.39	19.54	18.80	19.94	20.34	17.99	19.13	18.40	19.53	19.93
	4H	19.17	20.21	19.60	20.62	21.06	18.75	19.78	19.18	20.20	20.63
	6H	19.77	20.67	20.22	21.11	21.57	19.33	20.24	19.79	20.68	21.14
	8H	19.96	20.80	20.42	21.24	21.71	19.52	20.36	19.98	20.81	21.27
	12H	20.09	20.85	20.57	21.32	21.79	19.64	20.40	20.12	20.87	21.34
8H	4H	19.44	20.29	19.90	20.73	21.20	19.07	19.92	19.53	20.36	20.82
	6H	20.16	20.86	20.65	21.35	21.82	19.78	20.48	20.27	20.97	21.44
	8H	20.42	21.05	20.93	21.55	22.04	20.03	20.66	20.54	21.16	21.65
	12H	20.62	21.17	21.12	21.67	22.23	20.20	20.76	20.71	21.25	21.81
12H	4H	19.47	20.23	19.95	20.71	21.17	19.10	19.86	19.59	20.34	20.81
	6H	20.20	20.84	20.71	21.34	21.83	19.83	20.47	20.34	20.97	21.46
	8H	20.52	21.07	21.02	21.57	22.13	20.14	20.70	20.65	21.19	21.75