

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: P931239

Luminaire Tested: DFN2DS-TR2F0-020DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931239
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-TR2F0-020DS935-FLL
Description: 2 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

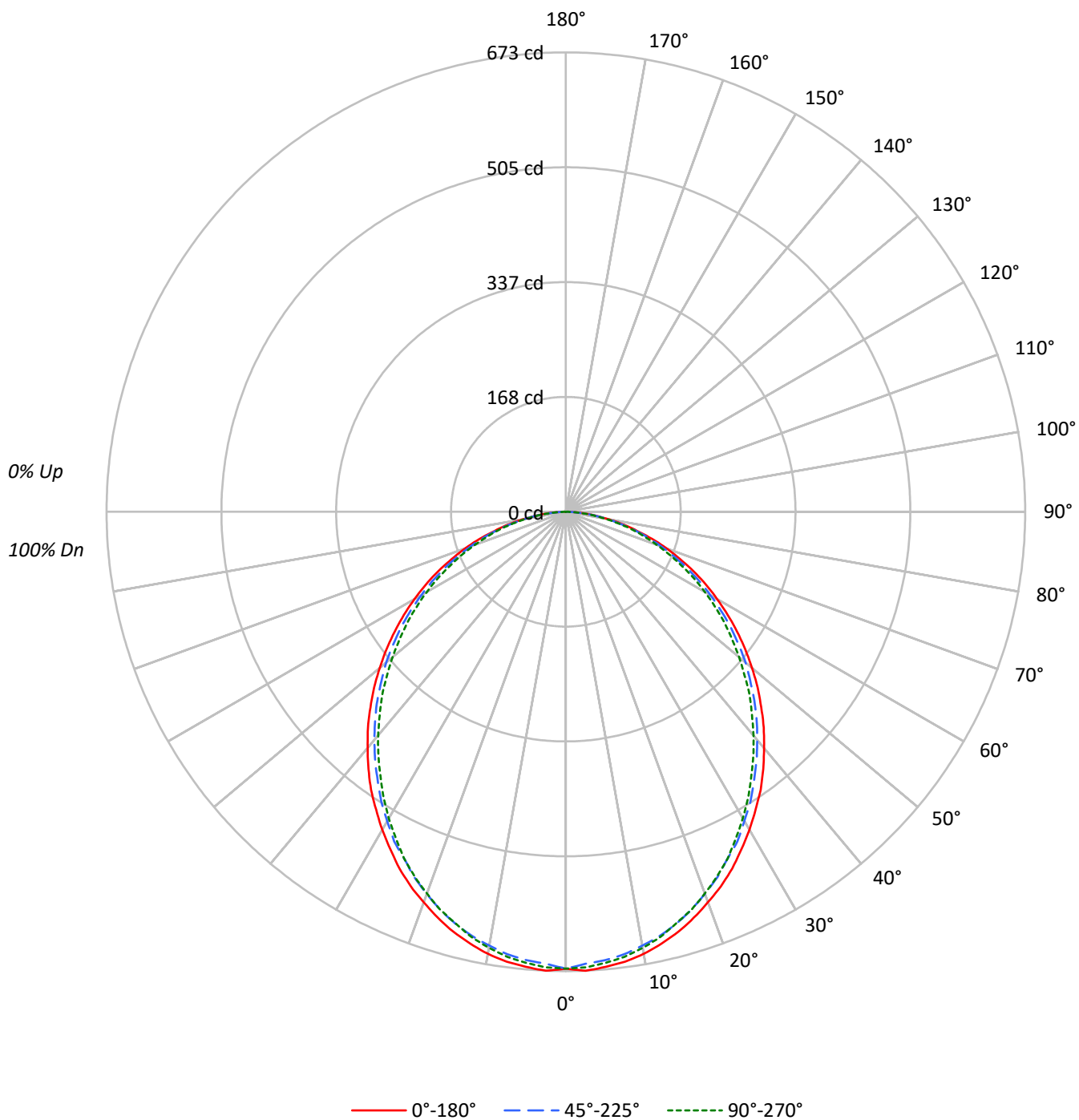
Lumens per Lamp: N/A
Luminaire Lumens: 1702.8 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.36' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 17.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9968
Total Harmonic Distortion (THDi): 0.064
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			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1493	1493	1493
5°	1499	1477	1486
10°	1490	1462	1469
15°	1471	1443	1442
20°	1445	1414	1413
25°	1419	1379	1379
30°	1386	1347	1336
35°	1355	1309	1290
40°	1315	1270	1246
45°	1277	1232	1202
50°	1235	1193	1150
55°	1191	1146	1104
60°	1142	1091	1051
65°	1090	1036	989
70°	1024	969	923
75°	932	892	870
80°	827	801	760
85°	673	642	576

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1277 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.0	3.7
10°-20°	177.2	10.4
20°-30°	260.5	15.3
30°-40°	302.5	17.8
40°-50°	302.1	17.7
50°-60°	263.4	15.5
60°-70°	194.7	11.4
70°-80°	110.2	6.5
80°-90°	29.1	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°	500.7	29.4
0°-40°	803.2	47.2
0°-60°	1368.8	80.4
0°-90°	1702.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1702.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	669	669	669	669	669	
5°	669	667	660	665	664	64
15°	637	633	625	628	624	179
25°	577	572	560	562	560	265
35°	498	491	481	477	474	311
45°	405	400	391	384	381	312
55°	306	302	295	287	284	274
65°	207	203	196	190	187	204
75°	108	107	104	100	101	115
85°	26	26	25	23	22	31
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	669.3	669.3	669.3	669.3	669.3
2.5°	673.1	669.9	662.8	669.3	668.0
5°	669.3	666.8	659.6	664.8	663.5
7.5°	664.8	660.9	653.9	659.0	657.7
10°	657.7	653.3	645.5	650.6	648.7
12.5°	648.0	644.2	636.5	639.7	638.4
15°	637.1	633.3	624.9	627.5	624.3
17.5°	623.6	619.8	611.4	614.6	611.4
20°	608.8	604.9	595.9	597.9	595.3
22.5°	594.0	588.2	579.8	579.8	578.5
25°	576.6	571.5	560.5	561.8	560.5
27.5°	557.3	552.8	544.5	542.6	539.3
30°	538.0	532.9	523.2	521.3	518.7
32.5°	517.4	513.6	503.3	499.4	496.8
35°	497.5	491.1	480.7	476.9	473.6
37.5°	475.0	469.1	458.8	454.3	451.1
40°	451.8	446.6	436.3	430.6	427.9
42.5°	429.2	424.1	413.8	407.4	403.5
45°	404.8	400.3	390.6	383.6	381.0
47.5°	381.0	376.5	366.2	359.0	355.3
50°	355.9	352.7	343.7	334.6	331.4
52.5°	331.4	326.9	318.5	311.5	307.0
55°	306.3	302.5	294.7	287.1	283.8
57.5°	281.2	278.0	269.6	262.0	259.3
60°	256.1	253.6	244.6	237.4	235.6
62.5°	231.7	227.1	220.8	214.3	211.7
65°	206.6	202.7	196.3	190.5	187.3
67.5°	180.9	177.6	171.8	167.4	164.8
70°	157.0	154.5	148.6	144.1	141.6
72.5°	132.6	130.0	126.8	122.3	120.4
75°	108.1	106.9	103.5	99.8	101.0
77.5°	86.3	83.7	82.3	80.4	78.5
80°	64.4	63.7	62.4	60.5	59.2
82.5°	43.8	43.8	43.2	40.6	40.6
85°	26.3	25.7	25.1	23.1	22.5
87.5°	11.6	10.3	9.0	7.1	6.4
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	12.67	14.28	13.04	14.60	14.91	12.23	13.84	12.60	14.16	14.47
	3H	14.42	15.88	14.80	16.21	16.57	13.93	15.39	14.31	15.72	16.08
	4H	15.07	16.44	15.47	16.79	17.16	14.58	15.95	14.98	16.29	16.67
	6H	15.54	16.81	15.95	17.17	17.56	15.04	16.31	15.45	16.67	17.06
	8H	15.68	16.89	16.11	17.28	17.68	15.18	16.39	15.61	16.78	17.18
	12H	15.77	16.93	16.20	17.32	17.74	15.26	16.42	15.69	16.80	17.23
4H	2H	13.23	14.60	13.63	14.95	15.33	12.88	14.25	13.28	14.60	14.98
	3H	15.21	16.36	15.62	16.75	17.15	14.80	15.95	15.21	16.35	16.75
	4H	15.99	17.02	16.42	17.44	17.87	15.56	16.60	15.99	17.01	17.45
	6H	16.58	17.49	17.04	17.93	18.39	16.15	17.06	16.61	17.50	17.95
	8H	16.77	17.62	17.23	18.06	18.53	16.34	17.18	16.80	17.62	18.09
	12H	16.91	17.67	17.39	18.14	18.61	16.45	17.21	16.93	17.69	18.16
8H	4H	16.26	17.11	16.72	17.55	18.01	15.89	16.73	16.35	17.18	17.64
	6H	16.97	17.68	17.47	18.17	18.64	16.59	17.30	17.09	17.78	18.26
	8H	17.23	17.87	17.74	18.37	18.86	16.84	17.47	17.35	17.98	18.47
	12H	17.43	17.99	17.94	18.48	19.04	17.02	17.58	17.53	18.07	18.63
12H	4H	16.29	17.05	16.77	17.52	17.99	15.92	16.68	16.40	17.16	17.63
	6H	17.02	17.65	17.53	18.16	18.64	16.65	17.28	17.16	17.79	18.28
	8H	17.33	17.89	17.84	18.38	18.94	16.96	17.51	17.46	18.00	18.57