

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: P930070

Luminaire Tested: DFN2DS-HX2F0-030DS935-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930070
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-HX2F0-030DS935-RLL
Description: 2 foot, Hexagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

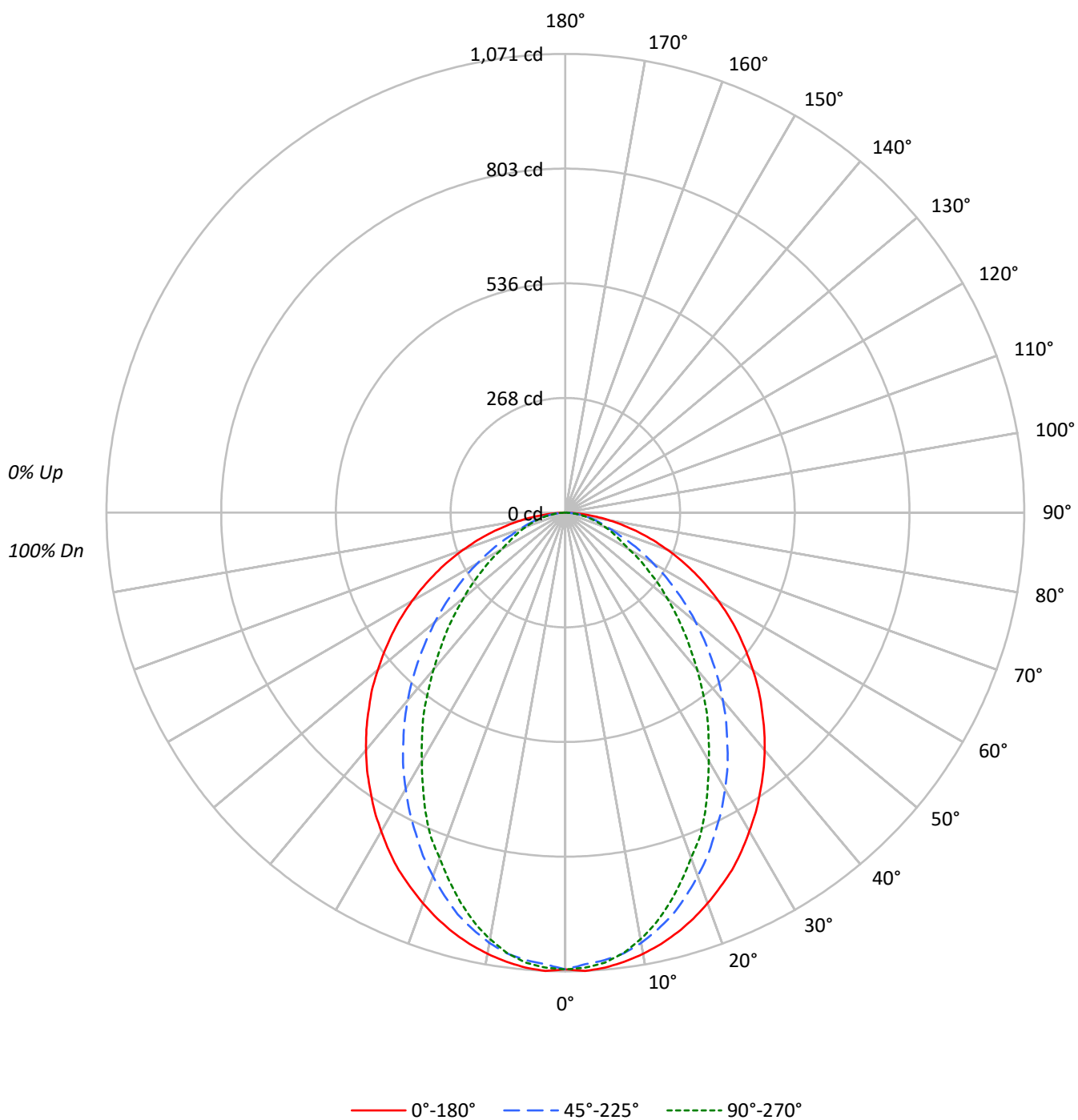
Lumens per Lamp: N/A
Luminaire Lumens: 2193.0 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.3' x L: 1.99' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9951
Total Harmonic Distortion (THDi): 0.07
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°	2512	2512	2512
5°	2522	2481	2495
10°	2503	2440	2420
15°	2474	2368	2300
20°	2434	2265	2151
25°	2393	2147	2007
30°	2337	2027	1822
35°	2282	1896	1660
40°	2226	1760	1472
45°	2161	1608	1302
50°	2094	1454	1136
55°	2025	1288	975
60°	1946	1114	810
65°	1856	936	737
70°	1748	771	678
75°	1616	703	633
80°	1427	628	577
85°	1122	495	495

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 2161 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.9	4.6
10°-20°	274.3	12.5
20°-30°	385.2	17.6
30°-40°	419.9	19.1
40°-50°	385.9	17.6
50°-60°	303.1	13.8
60°-70°	197.3	9.0
70°-80°	101.5	4.6
80°-90°	25.9	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°	759.4	34.6
0°-40°	1179.3	53.8
0°-60°	1868.3	85.2
0°-90°	2193.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2193.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1066	1066	1066	1066	1066	
5°	1066	1062	1049	1058	1055	101
15°	1014	1004	971	952	943	286
25°	921	890	826	786	772	423
35°	793	744	659	598	577	497
45°	648	584	482	414	391	501
55°	493	418	314	256	237	441
65°	333	255	168	135	132	330
75°	178	110	77	70	70	188
85°	42	21	18	18	18	50
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1066.3	1066.3	1066.3	1066.3	1066.3
2.5°	1071.1	1066.3	1055.6	1065.4	1063.5
5°	1066.3	1061.5	1048.9	1057.6	1054.7
7.5°	1057.6	1051.9	1038.4	1042.1	1037.3
10°	1046.0	1039.3	1020.0	1017.0	1011.4
12.5°	1031.6	1022.9	996.8	991.1	980.4
15°	1014.2	1003.5	970.8	952.4	942.8
17.5°	993.9	978.5	937.9	916.8	901.3
20°	970.8	951.4	903.2	879.2	857.8
22.5°	945.7	923.5	867.5	834.7	820.3
25°	920.6	889.7	826.0	786.5	771.9
27.5°	890.7	857.8	787.4	742.1	719.8
30°	858.9	822.2	744.9	695.8	669.7
32.5°	827.9	783.5	704.5	646.5	622.4
35°	793.3	744.0	659.1	598.3	577.1
37.5°	759.5	706.3	616.6	550.0	526.0
40°	723.8	665.9	572.2	503.7	478.7
42.5°	687.1	625.4	527.9	456.4	432.3
45°	648.5	583.8	482.5	413.9	390.8
47.5°	611.8	543.3	439.1	370.5	349.3
50°	571.3	502.8	396.6	330.0	309.8
52.5°	531.7	459.3	356.1	292.4	274.1
55°	493.0	417.8	313.6	255.8	237.4
57.5°	453.6	376.3	276.1	222.0	206.5
60°	413.0	335.8	236.4	187.2	171.8
62.5°	373.5	296.3	202.6	156.3	148.7
65°	332.9	254.7	167.9	135.1	132.2
67.5°	294.4	216.1	135.1	118.7	115.8
70°	253.8	178.5	111.9	102.3	98.4
72.5°	215.2	143.7	93.6	85.9	83.9
75°	177.5	110.0	77.2	70.4	69.5
77.5°	139.9	78.1	60.8	56.9	55.0
80°	105.2	56.0	46.3	42.5	42.5
82.5°	73.3	37.7	31.8	29.9	29.9
85°	41.5	21.2	18.3	18.3	18.3
87.5°	15.5	7.7	7.7	6.8	6.8
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	14.43	15.96	14.80	16.27	16.58	10.40	11.92	10.76	12.23	12.55
	3H	16.20	17.57	16.58	17.89	18.26	11.66	13.03	12.04	13.36	13.72
	4H	16.87	18.15	17.27	18.50	18.87	12.16	13.44	12.56	13.79	14.17
	6H	17.36	18.54	17.77	18.90	19.30	12.54	13.73	12.96	14.09	14.49
	8H	17.52	18.65	17.95	19.04	19.44	12.67	13.80	13.10	14.19	14.59
	12H	17.62	18.70	18.05	19.08	19.51	12.75	13.83	13.18	14.21	14.64
4H	2H	14.54	15.82	14.94	16.17	16.55	11.09	12.37	11.49	12.72	13.10
	3H	16.47	17.54	16.88	17.93	18.34	12.54	13.60	12.95	14.00	14.40
	4H	17.22	18.18	17.65	18.59	19.03	13.13	14.09	13.57	14.51	14.94
	6H	17.81	18.65	18.27	19.09	19.55	13.62	14.45	14.08	14.90	15.36
	8H	18.03	18.81	18.49	19.25	19.72	13.78	14.56	14.25	15.01	15.47
	12H	18.18	18.88	18.66	19.35	19.83	13.90	14.60	14.38	15.07	15.55
8H	4H	17.25	18.02	17.71	18.47	18.93	13.49	14.27	13.95	14.71	15.18
	6H	17.88	18.53	18.38	19.02	19.49	14.07	14.72	14.57	15.21	15.69
	8H	18.13	18.71	18.65	19.22	19.71	14.30	14.87	14.81	15.38	15.87
	12H	18.34	18.85	18.85	19.34	19.90	14.47	14.98	14.98	15.48	16.04
12H	4H	17.23	17.92	17.71	18.40	18.87	13.53	14.23	14.01	14.70	15.18
	6H	17.86	18.44	18.38	18.95	19.44	14.14	14.72	14.65	15.23	15.71
	8H	18.15	18.66	18.66	19.15	19.72	14.41	14.92	14.92	15.41	15.98

END OF REPORT