

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: P931328

Luminaire Tested: DFN2DS-TR3F0-030DS930-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931328
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-TR3F0-030DS930-RLL
Description: 3 foot, Triangle Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

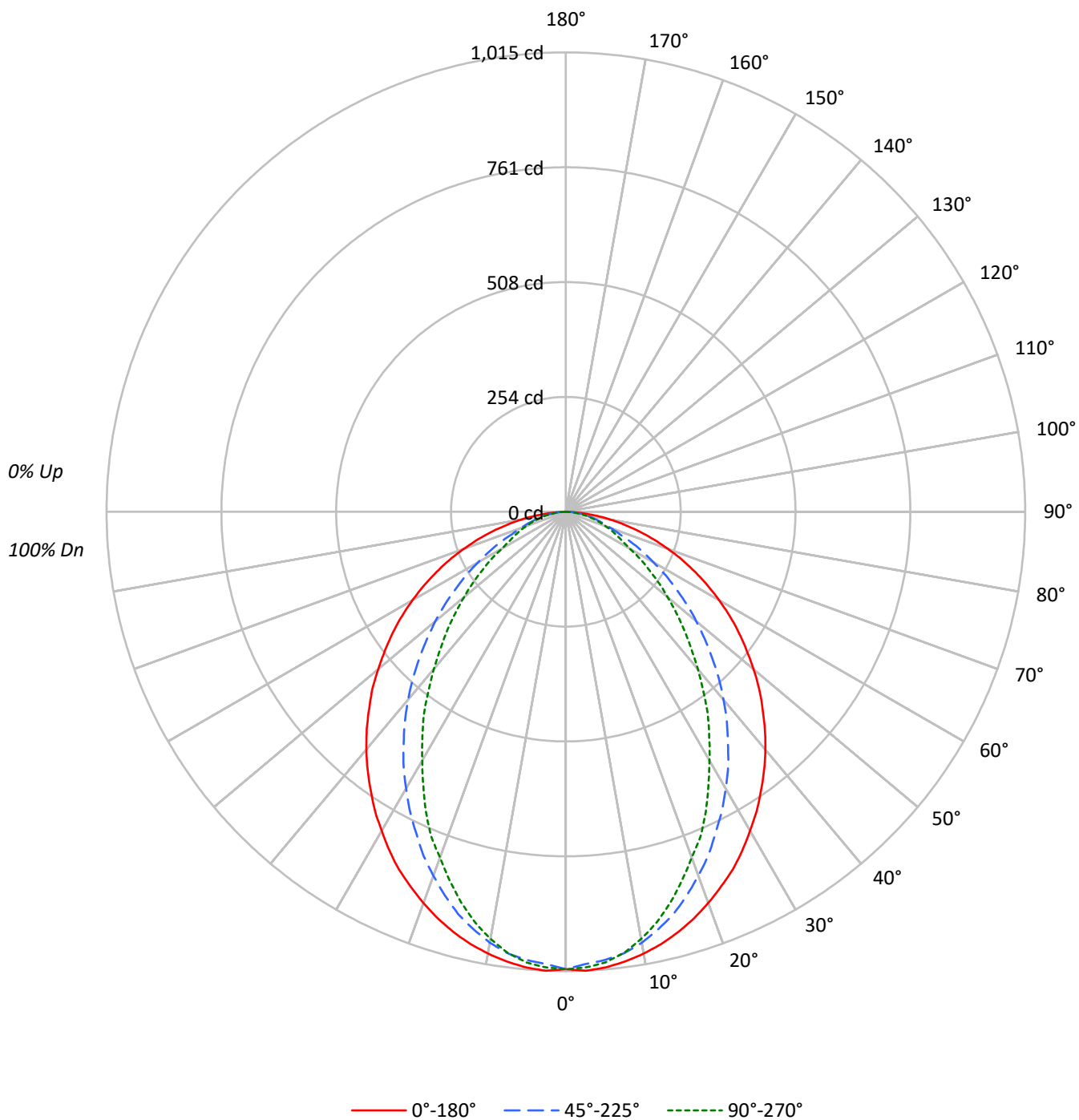
Lumens per Lamp: N/A
Luminaire Lumens: 2078.2 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
Input Voltage (V):
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
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°	1259	1259	1259
5°	1264	1243	1250
10°	1254	1223	1213
15°	1240	1187	1153
20°	1220	1135	1078
25°	1200	1076	1006
30°	1171	1016	913
35°	1144	950	832
40°	1116	882	738
45°	1083	806	653
50°	1050	729	569
55°	1015	645	489
60°	975	558	406
65°	930	469	369
70°	876	386	340
75°	810	352	317
80°	715	314	289
85°	562	249	249

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1083 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.7	4.6
10°-20°	260.0	12.5
20°-30°	365.0	17.6
30°-40°	397.9	19.1
40°-50°	365.7	17.6
50°-60°	287.2	13.8
60°-70°	186.9	9.0
70°-80°	96.2	4.6
80°-90°	24.6	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°	719.7	34.6
0°-40°	1117.6	53.8
0°-60°	1770.5	85.2
0°-90°	2078.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2078.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1010	1010	1010	1010	1010	
5°	1010	1006	994	1002	1000	96
15°	961	951	920	903	894	271
25°	872	843	783	745	732	401
35°	752	705	625	567	547	471
45°	615	553	457	392	370	475
55°	467	396	297	242	225	418
65°	316	241	159	128	125	313
75°	168	104	73	67	66	178
85°	39	20	17	17	17	47
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1010.5	1010.5	1010.5	1010.5	1010.5
2.5°	1015.1	1010.5	1000.4	1009.6	1007.8
5°	1010.5	1006.0	994.1	1002.3	999.5
7.5°	1002.3	996.8	984.0	987.6	983.1
10°	991.3	984.9	966.7	963.8	958.4
12.5°	977.6	969.4	944.7	939.2	929.1
15°	961.1	951.0	920.0	902.6	893.5
17.5°	941.9	927.3	888.8	868.8	854.1
20°	920.0	901.6	855.9	833.2	813.0
22.5°	896.3	875.1	822.1	791.0	777.3
25°	872.5	843.1	782.8	745.3	731.5
27.5°	844.1	813.0	746.2	703.3	682.2
30°	813.9	779.1	706.0	659.4	634.6
32.5°	784.6	742.5	667.6	612.7	589.8
35°	751.8	705.1	624.6	567.0	546.9
37.5°	719.7	669.4	584.4	521.2	498.5
40°	685.9	631.1	542.3	477.3	453.6
42.5°	651.1	592.7	500.2	432.5	409.7
45°	614.6	553.2	457.3	392.3	370.3
47.5°	579.8	514.9	416.1	351.1	331.1
50°	541.4	476.4	375.9	312.7	293.6
52.5°	503.8	435.3	337.5	277.1	259.7
55°	467.2	395.9	297.1	242.4	225.0
57.5°	429.8	356.6	261.6	210.4	195.7
60°	391.4	318.3	224.0	177.4	162.8
62.5°	354.0	280.8	192.0	148.2	140.9
65°	315.5	241.4	159.1	128.0	125.3
67.5°	279.0	204.8	128.0	112.5	109.7
70°	240.5	169.2	106.0	96.9	93.2
72.5°	203.9	136.2	88.7	81.4	79.5
75°	168.2	104.2	73.2	66.7	65.9
77.5°	132.6	74.0	57.6	54.0	52.1
80°	99.7	53.1	43.8	40.3	40.3
82.5°	69.4	35.7	30.2	28.4	28.4
85°	39.3	20.0	17.4	17.4	17.4
87.5°	14.7	7.3	7.3	6.4	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	12.03	13.56	12.40	13.87	14.18	8.00	9.52	8.36	9.83	10.15
	3H	13.80	15.17	14.18	15.49	15.86	9.26	10.63	9.64	10.95	11.32
	4H	14.47	15.75	14.87	16.10	16.47	9.76	11.04	10.16	11.39	11.77
	6H	14.96	16.14	15.37	16.50	16.90	10.14	11.33	10.56	11.69	12.09
	8H	15.12	16.25	15.55	16.64	17.04	10.27	11.40	10.70	11.79	12.19
	12H	15.22	16.30	15.65	16.68	17.11	10.35	11.43	10.78	11.81	12.24
4H	2H	12.14	13.42	12.54	13.77	14.15	8.69	9.97	9.09	10.32	10.70
	3H	14.07	15.14	14.48	15.53	15.94	10.13	11.20	10.55	11.60	12.00
	4H	14.82	15.78	15.25	16.19	16.63	10.73	11.69	11.17	12.11	12.54
	6H	15.41	16.25	15.87	16.69	17.15	11.22	12.05	11.68	12.50	12.96
	8H	15.63	16.41	16.09	16.85	17.32	11.39	12.16	11.85	12.61	13.07
	12H	15.78	16.48	16.26	16.95	17.43	11.50	12.20	11.99	12.68	13.15
8H	4H	14.85	15.62	15.31	16.07	16.53	11.09	11.87	11.55	12.31	12.78
	6H	15.48	16.13	15.98	16.62	17.09	11.68	12.32	12.17	12.81	13.29
	8H	15.73	16.31	16.25	16.82	17.31	11.90	12.47	12.41	12.98	13.47
	12H	15.94	16.45	16.45	16.94	17.50	12.08	12.59	12.59	13.08	13.64
12H	4H	14.83	15.52	15.31	16.00	16.47	11.13	11.83	11.61	12.30	12.77
	6H	15.46	16.04	15.98	16.55	17.04	11.74	12.32	12.25	12.83	13.31
	8H	15.75	16.26	16.26	16.75	17.32	12.01	12.52	12.52	13.01	13.58