

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P243224

Luminaire Tested: S122RDRP-H485D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243224
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-63)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H485D835-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

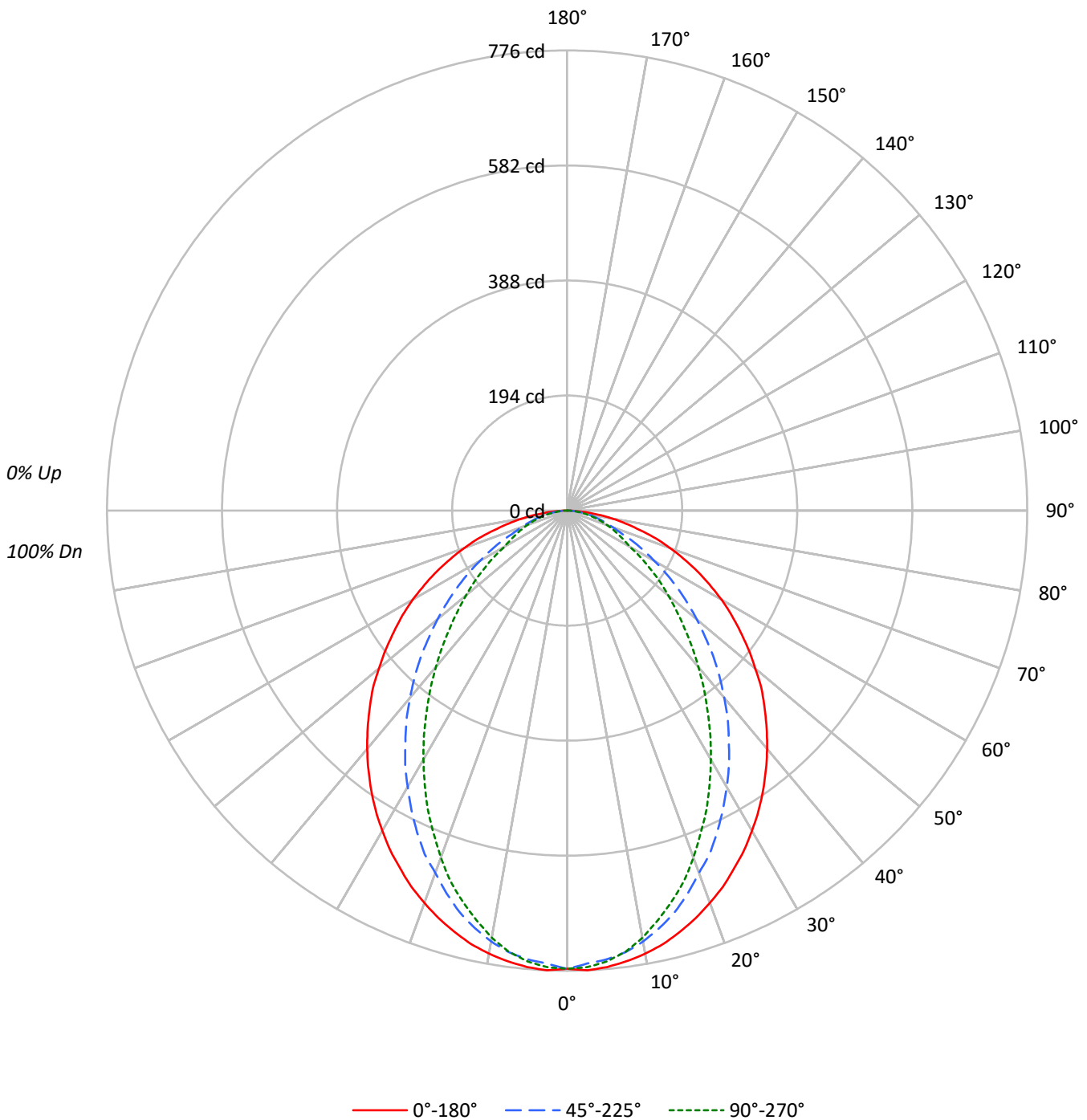
Lumens per Lamp: N/A
Luminaire Lumens: 1584.6 lumens
Efficiency: N/A
Efficacy: 92.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14718	14718	14718
5°	14774	14532	14595
10°	14674	14274	14144
15°	14500	13829	13449
20°	14270	13176	12622
25°	13997	12583	11685
30°	13709	11833	10661
35°	13394	11052	9596
40°	13047	10244	8554
45°	12679	9393	7524
50°	12268	8454	6599
55°	11846	7528	5689
60°	11455	6476	4648
65°	10939	5467	4295
70°	10286	4528	4010
75°	9369	4121	3680
80°	8413	3653	3291
85°	6994	3060	2907

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12679 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.4	4.6
10°-20°	198.3	12.5
20°-30°	278.2	17.6
30°-40°	303.1	19.1
40°-50°	278.6	17.6
50°-60°	218.6	13.8
60°-70°	142.6	9.0
70°-80°	73.7	4.7
80°-90°	19.1	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°	548.9	34.6
0°-40°	852.0	53.8
0°-60°	1349.2	85.1
0°-90°	1584.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1584.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	773	773	773	773	773	
5°	773	769	760	765	763	73
15°	735	727	701	687	682	207
25°	666	643	599	569	556	307
35°	576	538	475	431	413	360
45°	471	423	349	298	279	363
55°	357	303	227	184	171	320
65°	243	184	121	99	95	240
75°	127	79	56	51	50	136
85°	32	15	14	13	13	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	772.7	772.7	772.7	772.7	772.7
2.5°	776.0	772.7	764.7	772.0	770.7
5°	772.7	768.7	760.0	765.3	763.3
7.5°	766.7	762.7	751.3	754.0	750.7
10°	758.7	753.3	738.0	735.3	731.3
12.5°	748.7	741.3	720.7	712.7	707.3
15°	735.3	726.7	701.3	687.3	682.0
17.5°	720.7	708.0	676.7	660.7	655.3
20°	704.0	689.3	650.0	633.3	622.7
22.5°	686.7	668.0	627.3	601.3	588.7
25°	666.0	642.7	598.7	569.3	556.0
27.5°	646.0	618.7	568.7	534.7	520.0
30°	623.3	593.3	538.0	498.7	484.7
32.5°	600.7	566.0	508.0	465.3	449.3
35°	576.0	538.0	475.3	431.3	412.7
37.5°	550.7	511.3	445.3	396.7	378.7
40°	524.7	480.7	412.0	361.3	344.0
42.5°	498.0	453.3	380.7	328.7	312.0
45°	470.7	422.7	348.7	298.0	279.3
47.5°	444.7	392.7	316.0	268.0	250.0
50°	414.0	362.7	285.3	236.7	222.7
52.5°	386.0	332.7	255.3	208.7	196.7
55°	356.7	303.3	226.7	184.0	171.3
57.5°	329.3	272.7	198.0	159.3	147.3
60°	300.7	243.3	170.0	134.7	122.0
62.5°	270.7	213.3	145.3	112.0	108.0
65°	242.7	184.0	121.3	98.7	95.3
67.5°	212.7	156.7	96.7	86.7	83.3
70°	184.7	130.0	81.3	74.0	72.0
72.5°	157.3	104.7	68.7	62.7	60.7
75°	127.3	79.3	56.0	51.3	50.0
77.5°	101.3	56.0	44.7	41.3	40.0
80°	76.7	40.7	33.3	31.3	30.0
82.5°	52.7	27.3	23.3	22.0	21.3
85°	32.0	15.3	14.0	13.3	13.3
87.5°	12.7	6.0	6.0	5.3	5.3
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	20.59	22.11	20.95	22.43	22.74	16.47	18.00	16.84	18.31	18.62
	3H	22.36	23.72	22.73	24.05	24.41	17.77	19.13	18.15	19.46	19.82
	4H	23.02	24.30	23.42	24.65	25.03	18.28	19.56	18.67	19.90	20.28
	6H	23.51	24.69	23.92	25.06	25.45	18.66	19.84	19.07	20.21	20.60
	8H	23.67	24.80	24.10	25.19	25.59	18.78	19.91	19.21	20.30	20.70
	12H	23.78	24.86	24.21	25.24	25.67	18.86	19.94	19.29	20.32	20.75
4H	2H	20.69	21.97	21.09	22.32	22.70	17.18	18.46	17.58	18.81	19.19
	3H	22.63	23.69	23.04	24.09	24.49	18.65	19.72	19.06	20.12	20.52
	4H	23.37	24.33	23.81	24.75	25.18	19.26	20.22	19.69	20.63	21.07
	6H	23.96	24.80	24.42	25.24	25.70	19.75	20.58	20.21	21.03	21.49
	8H	24.18	24.96	24.64	25.40	25.87	19.91	20.69	20.37	21.13	21.60
	12H	24.34	25.04	24.82	25.51	25.98	20.03	20.72	20.51	21.20	21.67
8H	4H	23.40	24.18	23.86	24.62	25.09	19.62	20.40	20.08	20.84	21.31
	6H	24.04	24.68	24.53	25.17	25.65	20.21	20.86	20.71	21.35	21.82
	8H	24.28	24.86	24.80	25.37	25.86	20.43	21.01	20.95	21.52	22.01
	12H	24.50	25.01	25.01	25.50	26.07	20.61	21.13	21.12	21.62	22.18
12H	4H	23.38	24.08	23.86	24.56	25.03	19.66	20.36	20.15	20.84	21.31
	6H	24.02	24.59	24.53	25.10	25.59	20.28	20.85	20.79	21.36	21.85
	8H	24.30	24.81	24.81	25.30	25.87	20.55	21.06	21.06	21.55	22.12