

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: NEO-RAY

Report Number: P242609

Luminaire Tested: **S124DR-S575D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242609  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DR-S575D840-X4F0-XX-UDD-F-W  
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2322.7 lumens  
Efficiency: N/A  
Efficacy: 123.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

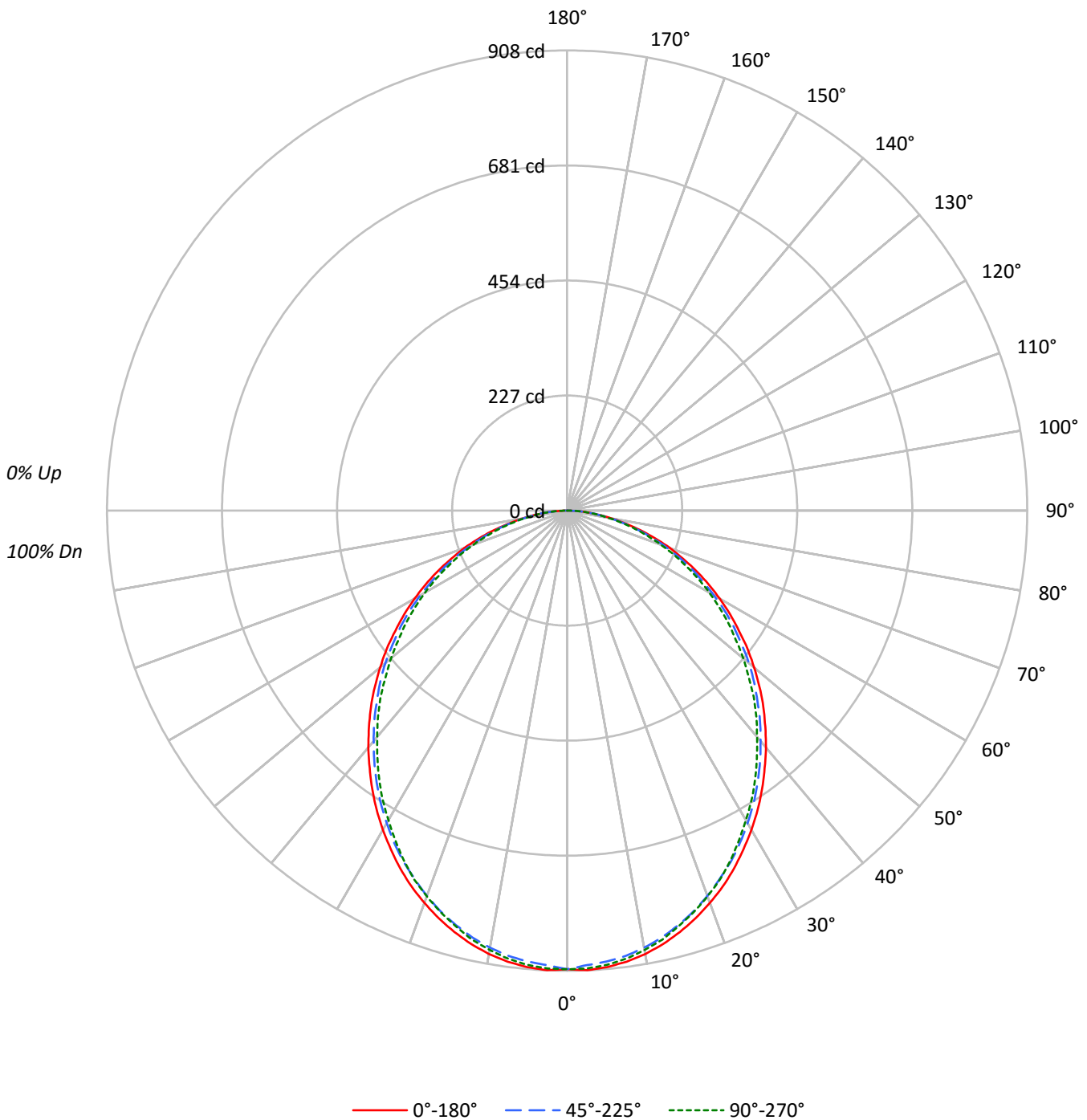
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	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	52	40	33	28	39	32	27	38	32	27	37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8044	8044	8044
5°	8068	7971	8030
10°	8018	7906	7946
15°	7921	7794	7814
20°	7792	7655	7661
25°	7645	7496	7475
30°	7465	7309	7241
35°	7278	7113	7019
40°	7084	6891	6765
45°	6883	6673	6544
50°	6659	6477	6277
55°	6416	6225	6024
60°	6174	5943	5762
65°	5902	5673	5445
70°	5598	5315	5107
75°	5131	4880	4757
80°	4566	4382	4269
85°	3998	3845	3774



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.3	3.7
10°-20°	240.3	10.3
20°-30°	353.7	15.2
30°-40°	411.1	17.7
40°-50°	411.1	17.7
50°-60°	359.5	15.5
60°-70°	266.9	11.5
70°-80°	151.5	6.5
80°-90°	43.4	1.9
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°	679.2	29.2
0°-40°	1090.4	46.9
0°-60°	1860.9	80.1
0°-90°	2322.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2322.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	904	901	893	901	900	86
15°	861	858	847	851	849	243
25°	780	774	764	765	762	359
35°	671	666	656	650	647	419
45°	548	542	531	523	521	422
55°	414	412	402	393	389	371
65°	281	277	270	262	259	278
75°	149	146	142	139	138	159
85°	39	39	38	38	37	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	904.9	904.9	904.9	904.9	904.9
2.5°	907.8	905.7	897.7	904.9	904.2
5°	904.2	901.3	893.3	901.3	899.9
7.5°	897.7	894.8	886.1	892.6	891.9
10°	888.3	885.4	875.9	881.7	880.3
12.5°	875.9	873.0	862.9	869.4	867.2
15°	860.7	857.8	846.9	851.3	849.1
17.5°	843.3	839.7	829.5	832.4	831.0
20°	823.7	820.1	809.2	811.4	809.9
22.5°	802.7	797.6	786.7	791.1	788.2
25°	779.5	774.4	764.3	765.0	762.1
27.5°	753.4	748.3	738.9	737.4	733.8
30°	727.3	721.5	712.1	709.2	705.5
32.5°	699.7	694.7	684.5	680.9	677.3
35°	670.7	665.7	655.5	650.4	646.8
37.5°	640.3	635.9	625.0	620.0	614.9
40°	610.5	604.7	593.9	586.6	583.0
42.5°	578.6	575.7	563.4	554.7	552.5
45°	547.5	542.4	530.8	522.8	520.6
47.5°	514.8	511.2	500.3	491.6	485.8
50°	481.5	478.6	468.4	458.3	453.9
52.5°	448.8	445.2	434.3	425.6	419.8
55°	414.0	411.9	401.7	393.0	388.7
57.5°	381.4	379.2	369.1	360.4	356.0
60°	347.3	343.7	334.3	327.7	324.1
62.5°	314.0	311.1	300.9	295.1	291.5
65°	280.6	277.0	269.7	262.5	258.9
67.5°	246.5	243.6	236.4	229.1	228.4
70°	215.4	210.3	204.5	198.7	196.5
72.5°	182.0	176.9	172.6	168.2	166.1
75°	149.4	145.7	142.1	139.2	138.5
77.5°	117.5	116.0	112.4	111.7	109.5
80°	89.2	87.0	85.6	84.1	83.4
82.5°	61.6	60.9	60.9	60.2	59.5
85°	39.2	39.2	37.7	37.7	37.0
87.5°	18.9	18.1	17.4	17.4	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)