

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: P242969

Luminaire Tested: **S121DR-H685D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242969
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-47)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-H685D940-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2279.1 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

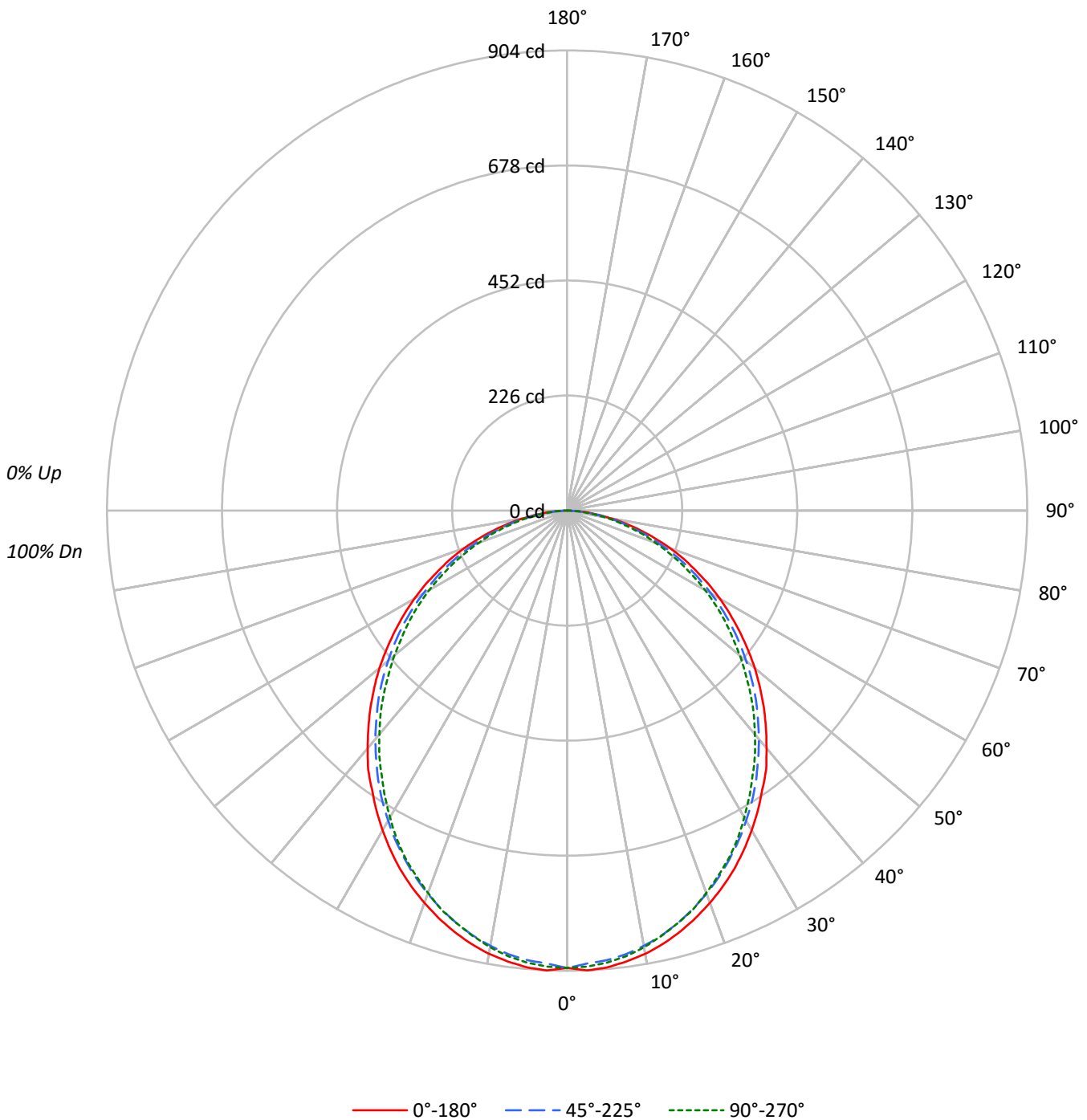
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60					60			
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52					52			
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45					45			
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39					39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31					31			
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26616	26616	26616
5°	26792	26373	26522
10°	26603	26127	26203
15°	26279	25742	25742
20°	25859	25253	25203
25°	25396	24686	24605
30°	24812	24069	23813
35°	24184	23399	22980
40°	23571	22670	22186
45°	22887	21978	21349
50°	22181	21144	20416
55°	21335	20343	19568
60°	20575	19390	18548
65°	19554	18327	17338
70°	18539	17023	15940
75°	16966	15443	14493
80°	14777	13633	12644
85°	12749	10471	8771



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.7	3.7
10°-20°	238.2	10.5
20°-30°	350.2	15.4
30°-40°	406.4	17.8
40°-50°	405.3	17.8
50°-60°	352.8	15.5
60°-70°	259.7	11.4
70°-80°	144.6	6.3
80°-90°	37.2	1.6
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°	673.0	29.5
0°-40°	1079.4	47.4
0°-60°	1837.5	80.6
0°-90°	2279.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2279.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	898	898	898	898	898	
5°	901	896	887	893	892	85
15°	857	852	839	843	839	241
25°	777	768	755	755	753	357
35°	669	660	647	639	635	419
45°	546	537	524	514	510	421
55°	413	406	394	383	379	370
65°	279	273	261	251	247	277
75°	148	142	135	129	127	157
85°	38	35	31	27	26	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	898.3	898.3	898.3	898.3	898.3
2.5°	904.2	899.2	890.9	898.3	896.7
5°	900.8	895.8	886.7	893.4	891.7
7.5°	893.4	889.2	879.2	885.0	883.4
10°	884.2	879.2	868.4	873.4	870.9
12.5°	871.7	867.5	855.1	859.2	855.9
15°	856.7	851.7	839.2	842.6	839.2
17.5°	839.2	834.2	820.9	823.4	821.8
20°	820.1	813.4	800.9	802.6	799.3
22.5°	799.3	791.8	779.3	779.3	776.0
25°	776.8	767.6	755.1	755.1	752.6
27.5°	751.8	743.5	730.2	728.5	726.0
30°	725.2	716.8	703.5	700.2	696.0
32.5°	697.7	688.5	676.1	670.2	666.1
35°	668.6	660.2	646.9	639.4	635.3
37.5°	641.9	630.3	616.1	609.4	606.1
40°	609.4	599.5	586.1	577.0	573.6
42.5°	577.8	568.6	554.5	545.3	542.8
45°	546.2	537.0	524.5	513.7	509.5
47.5°	513.7	504.5	492.1	481.2	475.4
50°	481.2	472.1	458.7	447.9	442.9
52.5°	447.1	440.4	426.3	416.3	409.6
55°	413.0	405.5	393.8	383.0	378.8
57.5°	379.7	373.0	360.5	348.8	346.4
60°	347.2	340.5	327.2	317.2	313.0
62.5°	313.0	306.4	293.9	283.9	279.7
65°	278.9	273.1	261.4	250.6	247.3
67.5°	247.3	239.8	229.0	219.0	214.8
70°	214.0	205.6	196.5	188.2	184.0
72.5°	180.7	174.0	166.5	158.2	156.5
75°	148.2	141.5	134.9	129.0	126.6
77.5°	117.4	112.4	107.4	101.6	99.9
80°	86.6	83.3	79.9	75.8	74.1
82.5°	60.8	58.3	53.3	50.0	48.3
85°	37.5	35.0	30.8	26.6	25.8
87.5°	17.5	14.2	10.8	9.2	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)