

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: P242945

Luminaire Tested: **S121DR-H685D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242945
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-H685D830-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2409.0 lumens
Efficiency: N/A
Efficacy: 102.1 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

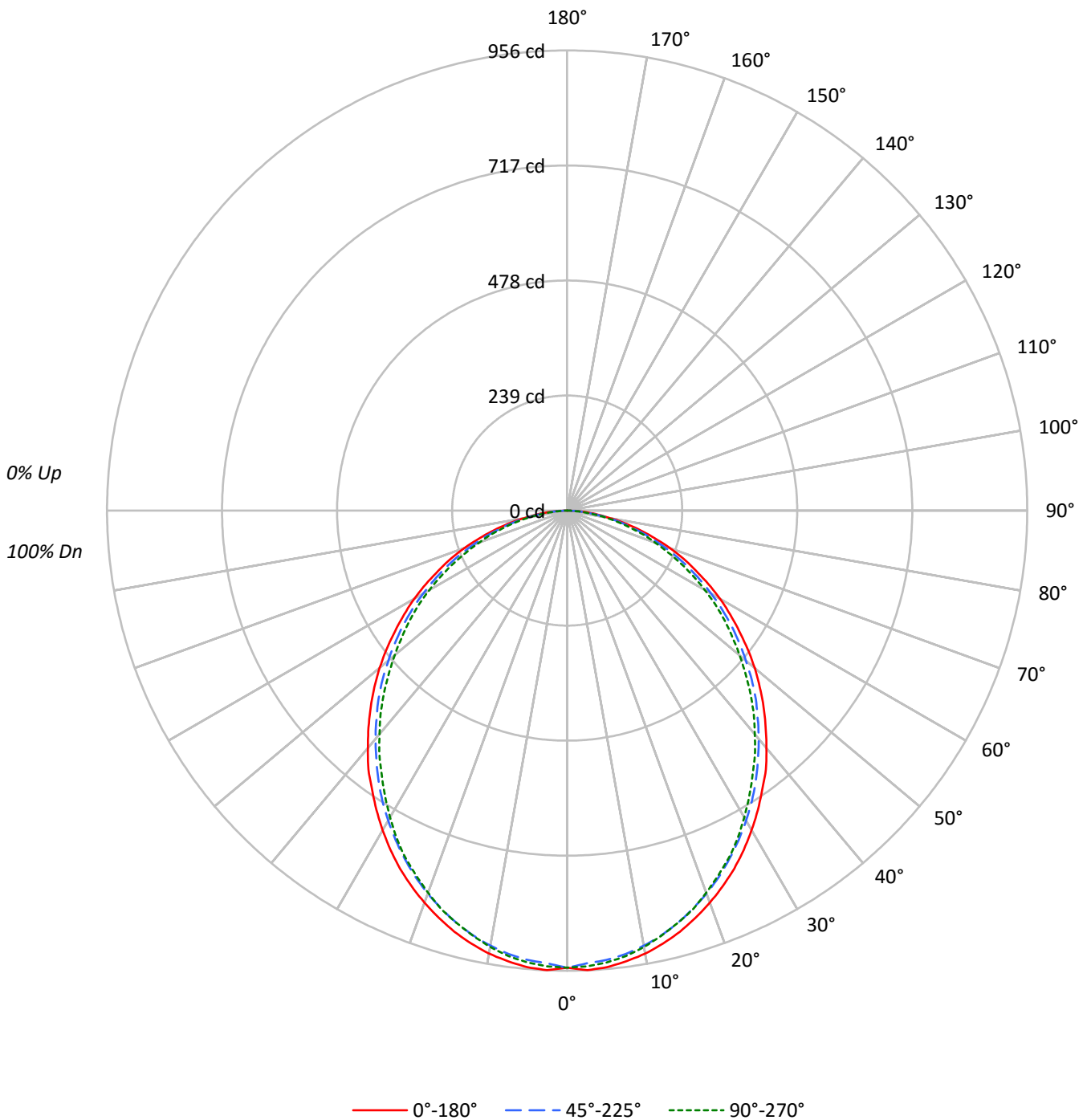
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28136	28136	28136
5°	28321	27875	28033
10°	28119	27617	27695
15°	27779	27212	27212
20°	27331	26694	26638
25°	26844	26095	26010
30°	26225	25441	25171
35°	25562	24734	24289
40°	24917	23962	23451
45°	24190	23231	22569
50°	23449	22352	21582
55°	22549	21505	20684
60°	21748	20498	19609
65°	20668	19371	18327
70°	19596	17993	16850
75°	17928	16325	15317
80°	15613	14418	13360
85°	13463	11083	9281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.5	3.7
10°-20°	251.8	10.5
20°-30°	370.1	15.4
30°-40°	429.6	17.8
40°-50°	428.4	17.8
50°-60°	373.0	15.5
60°-70°	274.5	11.4
70°-80°	152.9	6.3
80°-90°	39.3	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°	711.4	29.5
0°-40°	1140.9	47.4
0°-60°	1942.3	80.6
0°-90°	2409.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2409.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	950	950	950	950	950	
5°	952	947	937	944	942	90
15°	906	900	887	891	887	255
25°	821	811	798	798	796	378
35°	707	698	684	676	672	443
45°	577	568	554	543	539	445
55°	436	429	416	405	400	391
65°	295	289	276	265	261	293
75°	157	150	143	136	134	166
85°	40	37	33	28	27	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	949.6	949.6	949.6	949.6	949.6
2.5°	955.7	950.4	941.6	949.6	947.8
5°	952.2	946.9	937.2	944.3	942.5
7.5°	944.3	939.9	929.3	935.5	933.7
10°	934.6	929.3	917.9	923.2	920.5
12.5°	921.4	917.0	903.8	908.2	904.7
15°	905.6	900.3	887.1	890.6	887.1
17.5°	887.1	881.8	867.7	870.4	868.6
20°	866.8	859.8	846.6	848.4	844.8
22.5°	844.8	836.9	823.7	823.7	820.2
25°	821.1	811.4	798.2	798.2	795.6
27.5°	794.7	785.9	771.8	770.0	767.4
30°	766.5	757.7	743.6	740.1	735.7
32.5°	737.5	727.8	714.6	708.4	704.0
35°	706.7	697.9	683.8	675.9	671.5
37.5°	678.5	666.2	651.2	644.2	640.7
40°	644.2	633.6	619.5	609.9	606.3
42.5°	610.7	601.1	586.1	576.4	573.8
45°	577.3	567.6	554.4	543.0	538.6
47.5°	543.0	533.3	520.1	508.7	502.5
50°	508.7	499.0	484.9	473.5	468.2
52.5°	472.6	465.5	450.6	440.0	433.0
55°	436.5	428.6	416.3	404.8	400.4
57.5°	401.3	394.3	381.1	368.7	366.1
60°	367.0	359.9	345.9	335.3	330.9
62.5°	330.9	323.9	310.7	300.1	295.7
65°	294.8	288.7	276.3	264.9	261.4
67.5°	261.4	253.5	242.0	231.4	227.0
70°	226.2	217.4	207.7	198.9	194.5
72.5°	191.0	183.9	176.0	167.2	165.4
75°	156.6	149.6	142.6	136.4	133.8
77.5°	124.1	118.8	113.5	107.4	105.6
80°	91.5	88.0	84.5	80.1	78.3
82.5°	64.2	61.6	56.3	52.8	51.0
85°	39.6	37.0	32.6	28.2	27.3
87.5°	18.5	15.0	11.4	9.7	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)