

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: P242094

Luminaire Tested: **S121DR-S685D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242094
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-S685D840-X4F0-XX-UDD-F-W
Description: DEFINE 1 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: 2777.4 lumens
Efficiency: N/A
Efficacy: 106.0 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

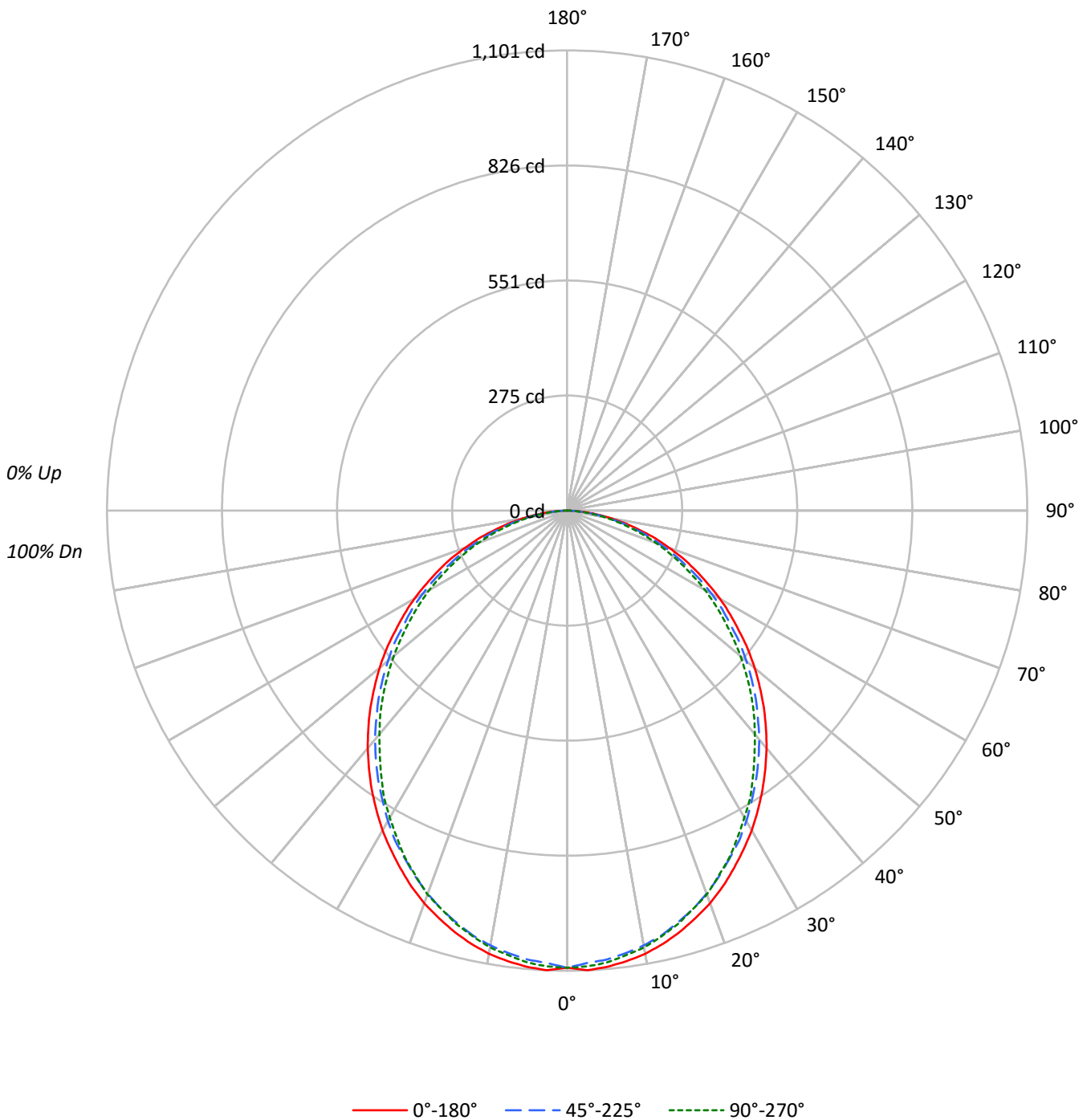
Input Watts (W): 26.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	96	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	71	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°	32406	32406	32406
5°	32589	32078	32289
10°	32388	31781	31934
15°	32000	31319	31411
20°	31525	30759	30822
25°	30869	30045	29979
30°	30231	29335	29023
35°	29480	28492	28054
40°	28711	27655	27029
45°	27886	26742	26068
50°	26998	25791	24952
55°	25927	24625	23737
60°	25013	23698	22619
65°	23788	22232	21096
70°	22394	20731	19596
75°	20584	18843	17573
80°	18257	16534	15340
85°	15094	12375	10981



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.0	3.7
10°-20°	290.0	10.4
20°-30°	426.5	15.4
30°-40°	495.3	17.8
40°-50°	494.1	17.8
50°-60°	430.0	15.5
60°-70°	316.7	11.4
70°-80°	176.4	6.4
80°-90°	45.5	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°	819.5	29.5
0°-40°	1314.8	47.3
0°-60°	2238.9	80.6
0°-90°	2777.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2777.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1094	1094	1094	1094	1094	
5°	1096	1091	1078	1088	1086	104
15°	1043	1035	1021	1028	1024	294
25°	944	934	919	921	917	435
35°	815	805	788	780	776	510
45°	666	654	638	626	622	513
55°	502	496	477	468	460	450
65°	339	332	317	307	301	337
75°	180	175	165	158	154	192
85°	44	42	36	34	32	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1093.7	1093.7	1093.7	1093.7	1093.7
2.5°	1100.8	1094.7	1083.6	1092.7	1091.7
5°	1095.7	1090.7	1078.5	1087.6	1085.6
7.5°	1087.6	1081.6	1068.4	1076.5	1073.5
10°	1076.5	1070.5	1056.3	1062.4	1061.4
12.5°	1061.4	1054.3	1041.2	1046.2	1043.2
15°	1043.2	1035.1	1021.0	1028.0	1024.0
17.5°	1022.0	1012.9	999.8	1003.8	999.8
20°	999.8	989.7	975.5	979.6	977.5
22.5°	973.5	964.4	948.3	950.3	946.2
25°	944.2	934.1	919.0	921.0	917.0
27.5°	913.9	904.8	890.7	887.7	882.6
30°	883.6	872.5	857.4	853.3	848.3
32.5°	849.3	839.2	822.0	818.0	815.0
35°	815.0	804.9	787.7	779.6	775.6
37.5°	778.6	768.5	751.3	742.3	736.2
40°	742.3	731.1	715.0	705.9	698.8
42.5°	703.9	693.8	675.6	666.5	661.5
45°	665.5	654.4	638.2	626.1	622.1
47.5°	625.1	615.0	598.8	585.7	581.7
50°	585.7	574.6	559.5	546.3	541.3
52.5°	545.3	535.2	521.1	508.0	499.9
55°	501.9	495.8	476.7	467.6	459.5
57.5°	462.5	455.4	440.3	425.2	420.1
60°	422.1	414.0	399.9	386.8	381.7
62.5°	379.7	373.6	359.5	347.4	340.3
65°	339.3	332.2	317.1	307.0	300.9
67.5°	301.9	292.9	277.7	267.6	262.6
70°	258.5	251.5	239.3	231.3	226.2
72.5°	221.2	213.1	202.0	193.9	188.8
75°	179.8	174.7	164.6	157.5	153.5
77.5°	143.4	136.3	129.3	124.2	121.2
80°	107.0	102.0	96.9	91.9	89.9
82.5°	74.7	70.7	65.6	62.6	59.6
85°	44.4	42.4	36.4	34.3	32.3
87.5°	21.2	18.2	12.1	11.1	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)